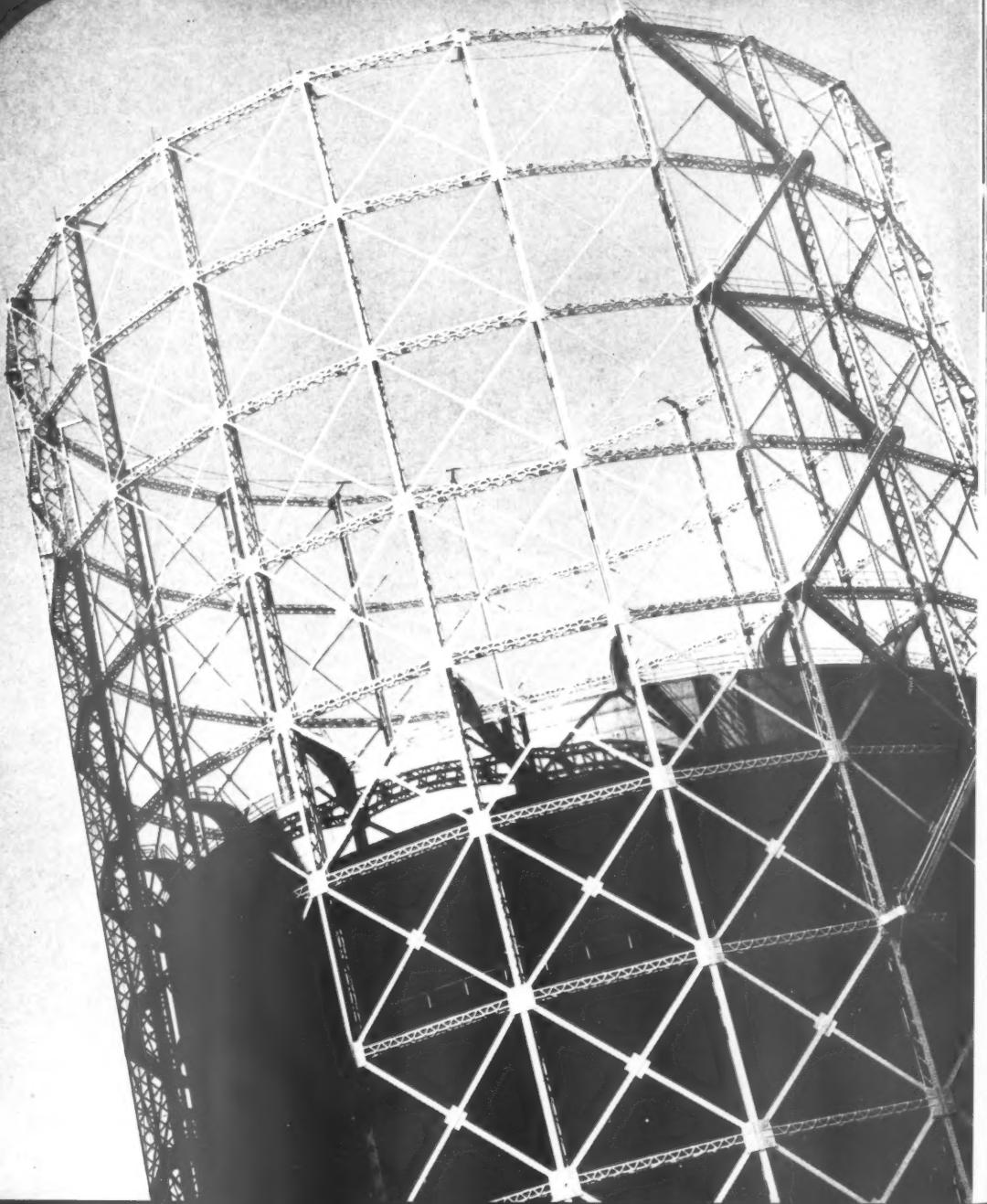


AMERICAN GAS ASSOCIATION

Monthly



now, join
a kit of practical tools
to tell the unique story
of the gas industry's
appliance testing program

STEER BY THIS STAR

TO BUILD GAS
APPLIANCE SALES
TO CREATE CUSTOMER
CONFIDENCE IN GAS SERVICE
TO DRAW NEW USERS TO GAS



FOLLOW THE BLUE STAR



A HEAD O' TESTING

to make a home . . . !



This thingamajig is not a space ship! It's
a scientific device that tests the body tem-
perature of gas furnaces in confined spaces.

Every day skilled engineers of the
American Gas Association Laboratories

put gas appliances through test after

acting test—part by part.

Only by passing hundreds
of such tests can a gas ap-

pliance win the coveted "Blue Star" Ap-
proval Seal — national symbol of safe,

dependable, satisfactory performance.

And it's all so that you—and 36,000,000

other gas-using families—can have better

and better tools for modern homemaking.

"Blue Star" appliances and Gas, the

ideal fuel, make an unbeatable combina-

tion for better living.



SERVES YOU



Weather Proofing
YOUR WASH-DAY . . . !

Let it rain—let it pour—drying laundry's a "breeze" with
an automatic gas dryer bearing the Approval Seal of
American Gas Association laboratories.

Behind that Seal—a Blue Star in a white circle—means
thirty years of gas appliance testing for safety, durability
and satisfactory performance. This program is guided by
275 experts from public service, government, industry and
professional groups. They are constantly raising testing
standards to bring you better and better gas appliances.

These "Blue Star" appliances and Gas, the ideal fuel,
are an unbeatable combination for modern living.

A SEAL OF
SATISFACTION
FOR YOUR
GAS APPLIANCES

THE STORY OF
AMERICAN GAS



This gas holder, owned by So. Calif. Gas, is 287' 10" high

THE use of natural gas in Russia will increase 13 to 15 times in the next 15 years, according to Nikita S. Khrushchev, First Secretary of the Soviet Communist Party. Mr. Khrushchev, in a report on page 13, cites the advantages of natural gas over other fuels. . . . In a promotion unique in Pittsburgh's building industry, a \$27,000 all-gas, all-steel home was erected atop an 11-story department store in the heart of the city. Nearly 200,000 persons including representatives of Pittsburgh's three gas companies visited the roof-top structure. Details begin on page 4. . . . H. Campbell Stuckeman, vice-president of Rockwell Manufacturing Co., writes in this issue (see page 8) how Rockwell determined that gas air conditioning is best for year-round conditioning of industrial plants. In reviewing the problems and overall costs faced by his firm, Mr. Stuckeman believes that gas utilities should find the relatively untapped industrial market a ripe one for air conditioning sales. . . . An accident prevention program thought to be the most ambitious positive approach to sound employee accident prevention ever taken by an entire industry in the U. S. will go into action for the gas industry in 1958. J. Theodore Wolfe, chairman, A. G. A. Executive Safety Committee, tells about the plan in his report on page 16.

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VOL. 39

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GENERAL MANAGEMENT • HOLLYWOOD BUREAU • HOME SERVICE •
INDUSTRIAL AND COMMERCIAL • INSPECTION • LABORATORIES • MEMBERSHIP • MRS. AMERICA •
NEW FREEDOM • OPERATING • PAR PLAN • PROMOTION • PUBLICATIONS •
PUBLIC INFORMATION • PUBLICITY • RATES • RESEARCH • RESIDENTIAL • SAFETY •
STANDARDIZATION • TELEVISION • TESTING • UTILIZATION • WASHINGTON BUREAU •
ACCOUNTING • ADVERTISING • BUREAU OF STATISTICS • COMMITTEES •
CONVENTIONS • EDUCATIONAL SERVICES • FIELD PROGRAM • GAS INDUSTRY DEVELOPMENT •
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GAS INDUSTRY BOOKLET

The A. G. A. Public Information Bureau is negotiating with the American Geographical Society to produce another booklet in the "Know Your America" series on the natural gas industry. This series is distributed through Doubleday Doran Book Club.

COAL INDUSTRY DRIVE ON

A well-organized effort by the coal industry and its allies is underway in Washington to pre-empt the gas industry's industrial business. The drive is aimed at amending the Natural Gas Act to give the Federal Power Commission jurisdiction over industrial sales of gas.

PETITION FOR GAS

According to the weekly news bulletin of the Washington Natural Gas Co., 80 per cent of the voters in Palm Springs Outpost, Calif., signed a petition requesting natural gas service. The town previously was all-electric but the citizens of the small community stated they needed natural gas because they were unable to "live better electrically." Service is being supplied by the Southern California Gas Co.

CGA APPROVALS PROGRAM

The Canadian Gas Association's approvals program is progressing favorably, according to W. H. Dalton, the association's managing director. Under the CGA program, the gas approvals specifications are written by the Canadian Standards Association and all equipment is tested in the stipulated laboratories.

UNIFIED GAS EXHIBIT

A unified gas exhibit made up of 11 magazine-designed New Freedom Gas Kitchens and individual manufacturing displays will dominate the National Association of Home Builders Exposition in Chicago January 19-23. Gas companies with representatives at the exposition are invited to make the exhibit their headquarters. The New Freedom Bureau will have an office in booth 797.

HISTORIC DECISION

In a historic decision last month, the American Petroleum Institute announced it was combining its public relations and legislative divisions. The announcement was made in Philadelphia during a session of the annual convention of the Public Relations Society of America.

STORAGE LAWS COMPILED

A compilation of state laws and regulations pertaining to storage operations has been prepared by the Operating Section's Committee on Underground Storage. Eighteen states which have such rules are included. Only six copies have been prepared and are available on a loan basis.

198 ARTICLES LISTED

A total of 198 technical articles are listed in the new Bibliography on Stray Current Electrolysis and Effects of Electric Grounding, just compiled by the Operating Section's Corrosion Committee. Researchers studied publications published as early as 1892 in France, England, Germany, Canada, and the United States.

\$15,000 AD MINIMUM SET

The Industrial and Commercial Advertising Committee has agreed that a minimum of \$15,000, as recommended by the General Promotional Planning Committee, will be allocated to air conditioning advertising. The advertising will begin early in 1958 in architect and builder magazines. If possible, the air conditioning advertising money in 1958 will be matched with that of manufacturers under A. G. A.'s space-sharing plan.

OBSERVE CENTENNIAL

Managing Director C. S. Stackpole was a featured speaker at the dinner honoring the Michigan Consolidated Gas Co. for 100 years of gas service in Grand Rapids. His topic: "The Gas Industry—Old in Birthdays but Young in Outlook." Mrs. America (Mrs. Linwood Findley) also addressed the group on "The Role of Women in America's Future." The dinner was held Nov. 14.

A unique idea for the old timers



These old timers—all retired employees of the British Columbia Electric Co., a combination utility—enjoy the facilities made available to them by the company. It's a unique idea in employee relations.

Maybe you don't want to retire. Maybe you do—you've been reading the right books on what to do after retirement, and you figure you'll take up a couple of hobbies and do some remodeling on the house.

Then comes retirement day, and somehow it just isn't like what it said in the books.

You start wondering about your usefulness. And every once in a while you start wondering, too, what ever happened to the old gang you worked with since way back when.

If you're a retired employee of British Columbia Electric Co., a combination utility in Vancouver, these retirement problems of yours vanish—they've been taken care of by a foresighted employer.

You're getting a pension. Your ideas on running the company are being con-

sidered carefully. And best of all, you can wander into the company at just about any time—without being thought of as a nuisance—and meet the old gang for a game of cards, or simply for some pleasant conversation in attractive surroundings.

This Canadian utility with an enviable reputation for employee relations has made generous provisions for its over-65's. One corner of its handsome new \$1.5 million building has been set aside for their exclusive use. This "Retired Employees' Lounge" is situated on the second floor of the modern structure, and is open until midnight from Monday through Saturday.

The company will explain to you that it is providing pensioners with a lounge and a miniature kitchen, plus the necessary items for light snacks. And current

periodicals, newspapers, playing cards, checkers and chess, as well as light, heat, and janitor services.

But ask the old-timer himself what is being provided, and his answer will be somewhat different. He'll tell you that the company is giving him a place to go, and more important, a place to go and feel wanted.

To say these old-timers are living in the past is fallacious; many of their suggestions for the company's present and future operations have been very worthwhile. And to say these old-timers are boosters for the company is putting it mildly.

Utilities take note: This foresightedness by British Columbia is both unusual and impressive, but it isn't difficult to imitate.

Got a spare room?



"Steelaire-Fifth Avenue" dining room has relaxed atmosphere, with contemporary decor, pleasantly set off by antique pewter lighting fixture



Together are (l. to r.): T. H. Evans of Equitable, Mrs. America, Christy Payne of Peoples Natural, Mrs. Pennsylvania, D. J. Egan of Manufacturers



Skyscrapers of Pittsburgh form a picturesque background for the all-steel home on the roof of a department store. Note the all-steel door.

*Natural gas and steel are featured
in home unique in building industry; promotion
represented two years of planning*

Pittsburgh's roof-top house draws 200,000

Natural gas and steel—two of the nation's greatest resources—were featured in a two-month promotion that was unique in Pittsburgh's home building industry.

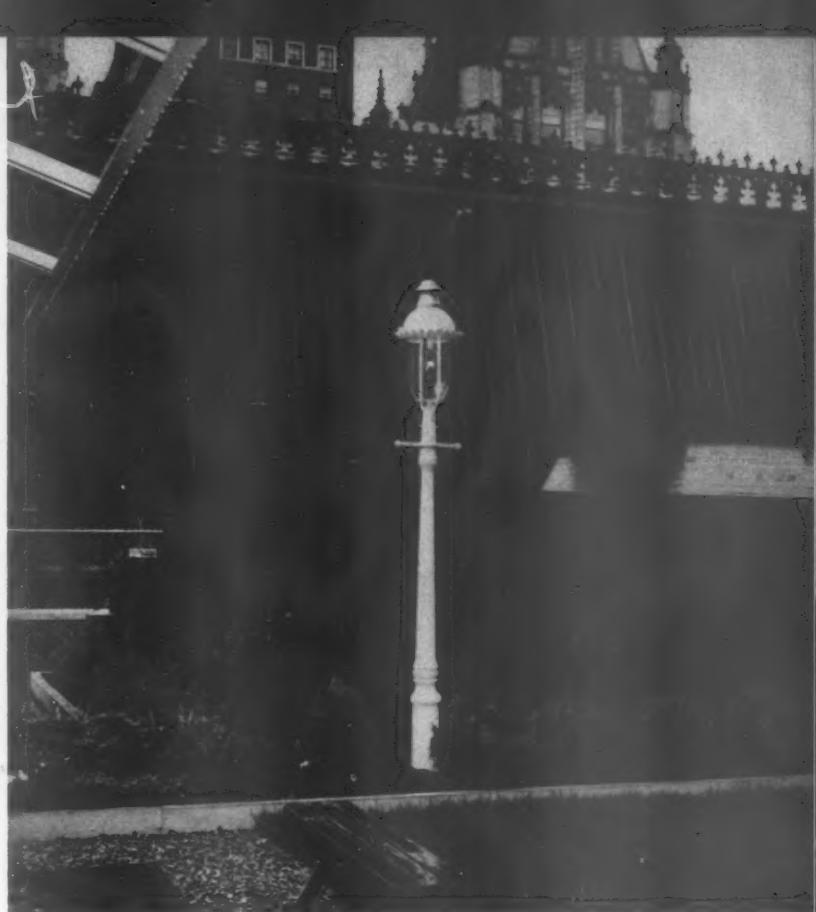
Under a picturesque background of skyscrapers, nearly 200,000 persons visited the eleventh floor roof-top of Kaufmann's Department Store to see "Steelaire-Fifth Avenue," an all-steel, seven-room home. It was the first complete dwelling ever erected atop a department store in the heart of a city.

The promotion represented two years of planning by the U. S. Steel Homes Division of U. S. Steel Corp. and Homes Sales, Inc., Pittsburgh's largest residential real estate organization.

The slogan applied was "the newest thing in homes since caves," and perhaps, the home's modernity was made possible by the use of natural gas as much as anything else. Besides the gas home laundry, gas furnace center, and gas kitchen incorporating a gas built-in range and oven, the by-products of



Steel Homes' "Stelaire-Fifth Avenue," the
all-gas—all-steel home during promotion



Cupolas and spires of Pittsburgh's Union Trust Building in background provide fitting setting for the gas lamp post on patio garden of house

gas were apparent in other ways. Many of the steel-constructed furnishings were made from natural gas by-products, and promised the maximum in comfort and long life.

The roof-top site covered 16,000 square feet. Visitors were ushered into an attractive, all-steel structure, richly finished on the outside in weathered gray with vertical redwood siding, and accents of turquoise colored inserts.

Viewers circled through 1,500 square feet of well-divided living space in this two-bath, four-bedroom home, moving with ease over the carpeted hallway leading from the entrance to the exit. Stepping from sumptuous interiors onto landscaped patios through steel-framed, floor-to-ceiling sliding doors, visitors could stroll along the garden noting that every room featured sliding windows. The entire house was characterized by this open air effect.

The 200,000 visitors were dramatically told of the advantages of natural

gas during the tour. In the clean-lined simplicity of the Youngstown Kitchen, the built-in Tappan oven and the separate counter-top cooking units pointed up the complete acceptance of the modern "built-in." Home-seeking Pittsburgh residents seemed especially impressed with the top burner which makes every utensil an automatic appliance.

The Whirlpool gas clothes dryer highlighted gas economy; also pointing up the dependability and economy of gas was the "family-rated" A. O. Smith Permaglas water heater, and the Mor-Sun automatic furnace.

To get this promotion off on the right foot, editors of leading national consumer and shelter magazines were invited to survey the home at a private showing. Hosted by Kaufmann executives and heads of the steel industry, their representatives and suppliers, and Pittsburgh's gas company executives, editors were given a complete view of this new idea in housing. Later, the story of the Stelaire home was graph-

ically explained to the guests. Before leaving, editors were guests at a buffet dinner, and were presented with information kits giving such facts as: the home costs \$27,000 plus building site and land improvement costs; that its design was the work of four top-flight architects, all award winners, and represented a cross-section of American desires; that six tons of steel above that which is in a conventionally built home were used in Stelaire-Fifth Avenue; that the clear span of 28 feet without intermittent support, made possible by the steel roof truss, offered increased flexibility; that steel structure resisted wind, snow, rain, termites and rot; and that steel was used only where it equalled or excelled other building materials in cost, performance, quality and appearance.

Among guests present at the preview were officials of the American Gas Association and the natural gas companies serving the Greater Pittsburgh Area. Pittsburgh's three gas companies, the Equitable Gas Co., The

Mrs. Mary Eythe—Mrs. Pennsylvania admires the latest look in top burner cookery. The automatic top burner heat control is the focal point in the custom-designed range by Tappan. On the opposite wall are a deluxe gas built-in oven and broiler. The ultra-modern kitchen in the roof home is by Youngstown



Peoples Natural Gas Co., and The Manufacturers Light and Heat Co., joined in the promotion to make Steelaire-Fifth Avenue a gas home. They supplied the gas kitchen, automatic gas furnace, gas water heater and gas clothes dryer.

Concerning the roof-top venture with the steel industry, Christy Payne, Jr., vice-president of The Peoples Natural Gas Co., and chairman of the A. G. A. General Promotional Planning Committee, said: "Gas has always played an essential part in steel making; likewise, steel is the essential material without which gas could not be produced and distributed to the far corners of our country. It seems proper that two great industries, which are major customers of each other, should join hands to promote each other's product. The Steelaire home is a fine example of what these two industries have done to help each other promote their products."

Pittsburgh's gas companies were instrumental in part for the constant stream of visitors. Through their advertising agency, they had brought the combined strength of their advertising media to bear on the promotion, backing it with billboards, newspapers, radio and television advertising, notices on gas bills and hand-out pieces.

Gas appliance distributors added

their weight through their regular advertising media. U. S. Steel, through its auditorium display and its weekly program "Kitchen Planning" on station KDKA-TV, helped to point up the tie-in with gas heating, winter air conditioning with an automatic gas furnace, gas water heating and gas cooking.

Midway in the promotion, Pittsburgh's gas companies gave the Steelaire-Fifth Avenue another lift with the appearance of the current Mrs. America (Mrs. Linwood Findley). She was seen by 2,289 visitors who toured the roof-house during her visit. Together with Mrs. Mary Eythe, Mrs. Pennsylvania of 1957-58, Mrs. Findley presided at the home for an hour in the morning and an hour in the afternoon.

A press party, held on the day preceding Mrs. America's public appearance, was well attended by newspaper reporters, photographers, television cameramen, and radio commentators.

Wide coverage was given her appearance in Pittsburgh, with pictures and stories in the three metropolitan dailies, television film on two news programs, a live radio interview and a recorded radio interview. Her appearance was also advertised on the natural gas companies' regular TV and radio programs. Kaufmann's contrib-

uted their share by advertising Mrs. Findley's appearance in the two evening newspapers. Posters showing her picture were displayed throughout the store.

The muscular dystrophy campaign and the Pittsburgh Methodist Center provided supplementary promotions for the Mrs. America visit. The Findleys, active church workers, were the subject of a special story in the national Methodist publication, *Together*. The Pittsburgh Methodist bishop was contacted and a meeting was arranged between Mrs. Findley and Dr. and Mrs. Ernest V. May of the Methodist Church. Editors of the Pittsburgh newspaper church pages were notified.

The muscular dystrophy publicity, while as distant from the roof-house promotion as the church tie-in, served to give wider coverage in the community weeklies, as well as in a Pittsburgh daily newspaper.

Following Mrs. America's visit to the Steelaire-Fifth Avenue, the RCA Corporation sponsored Vaughn Monroe's appearance in Pittsburgh. In the Steel City to kick off the United Fund drive, the former orchestra leader visited Kaufmann's to greet fans and sign autographs. His visit there added impetus to the last quarter of the exhibition.

Book on laundering available

Book is used as reference on water temperature, softening; selection of starches, bluings, detergents; drying; and ironing



Distribution of the second edition of the American Gas Association's new book, *All About Modern Home Laundering*, is underway. The book was prepared at a cost of \$40,000, much of which went for research.

The first order—5,000 copies—was received by the Manufacturers Light & Heat Co., Pittsburgh. This brings the utility's total order of the 80-page home laundering guide to 8,000 copies.

This second edition is being distributed by A. G. A.'s Educational Service Bureau. Single copies are 50 cents. In lots of 13 or more, the cost of each book is 35 cents.

For the Manufacturers Light & Heat Co., the book is playing an important part in the company's five-year-old home laundry program. Miss Flora Dowler, home service director, said that while the firm's principal use of the book is with home economics students in high schools, distribution is also made at demonstrations to church and club groups.

Some of these demonstrations, she said, are laundry clinics. Others are combination cooking and laundry demonstrations. All feature the laundering of the new fabrics, and all demonstrations promote the use of gas appliances.

The book, which plays an important role in the demonstrations, was first published by the Ruud Manufacturing

Co. as a non-commercial brochure. It is edited by nationally-recognized consultants to provide homemakers, teachers and pupils, U.S.D.A. extension workers and others authentic and usable facts on home laundering.

Miss Dowler said that the home laundry program had advanced slowly in schools, although school officials have recognized the importance of range and refrigerator training. "There is much work to be done before we can educate them to the value of laundry demonstrations and school laundry set-ups," she said.

She added that the Manufacturers Light & Heat Co. has its field representatives contact the school principal and home economics teachers in small towns and rural sections, and in larger cities she works through the superintendent of schools or the head of home economics education. The home economics instructor and the gas company representative work together in determining the laundry demonstration and study program.

Miss Dowler said that the laundry book has valuable source material information in forming such a program.

Many laundry demonstrations planned as a series, classroom style, are given in the auditoriums of The Manufacturers Light & Heat Co. buildings. This often marks the first time many of the stu-

dents have ever seen a modern laundry. Most of the students are familiar with an attractive, convenient kitchen, but the laundry has remained a clothes-washer out of sight in the basement.

It's Miss Dowler's opinion that this can be the first step in interesting the principal or board of education, through the home economics teacher, in planning a school laundry set-up. Also, auditorium demonstrations often result in parents of students visiting the company's show room.

The book is used as a reference text for water temperature and softening; selection of detergents, starches and bluings; drying, and ironing. It has also proven valuable in selection of fabrics for sewing projects in high school textile and sewing classes. Specifically, it covers these subjects:

1. Appliance equipment.
2. Packaged laundry accessories.
3. Fibers and fabrics.
4. Laundering methods.
5. The laundry area.
6. The utilities.
7. Laundry master plan.

There are many other applications for the laundry book such as dealer demonstrations, training classes for home economists, laundry clinics for customers in show rooms, auditoriums and for making calls on washer and dryer customers.

Says gas conditioning is best



The flagcrete wall enclosing patio and overhead iron trellis divides recreational area from the desert and road and contrasts with the strictly functional lines and texture of walls enclosing the work areas



The air conditioning system in the offices. Office air is kept at 65° F.

By H. CAMPBELL STUCKEMAN

Vice-President
Rockwell Manufacturing Company

Judging by our experience with plant air conditioning in the past four years, gas utility companies should have little trouble selling their product to a relatively untapped, but rapidly expanding market. I refer to providing year-round air conditioning for new or modernized industrial facilities. Plant air conditioning has proven to be a profitable investment, and the increasing availability of low cost gas fuel has made gas air conditioning particularly attractive.

Our first gas air conditioned plant

was completed and opened for production in 1954 at Sulphur Springs, Texas. Subsequently, we incorporated gas air conditioning in new plants at Russellville, Ky.; Kearney, Neb.; Porterville, Calif.; and new additions at Tupelo, Miss., and DuBois, Pa. Most of these new facilities are located in areas where climatic conditions make controlled temperature and humidity an especially important consideration.

We have found that complete air control has resulted in the following advantages:

1. Better quality of workmanship—at lower cost—owing to absence of wide fluctuations in temperatures of tools, fixtures and parts to be machined.
2. Attraction of more qualified per-

sonnel resulting from the obvious improvement in working conditions—and an estimated 18 per cent greater productivity from personnel due to absence of such warm weather time losers as heat exhaustion, gogglefogging and trips to the water fountain. Also better "human relations" in hot weather.

3. Reduction of absenteeism from colds and other health complaints.

4. Increase in building longevity—because of reduced wear and tear caused by lack of control of temperature and humidity.

5. Inventory and equipment cost savings made possible by elimination of rusting caused by excessive humidity.

6. Some reduction of initial building costs because of elimination of need for

Rockwell Manufacturing Company installs gas air conditioning

in six plants it superior to other methods of year-round conditioning;

especially availability of low-cost gas fuel



...air conditioning equipment on a balcony of one end of the plant adjacent to the office air conditioning system is separate from units serving the factory



Precision testing equipment is required to check meters assembled in Rockwell plants. The gas air conditioning equipment keeps this plant dust-free and makes workers comfortable

windows—along with additional operational advantages and cost savings made possible by windowless construction. The latter include (a) an estimated 5 to 10 per cent more usable floor space as a result of elimination of any need for aisles next to windows (not to mention additional usable wall space), (b) better-engineered lighting system not dependent on outside lighting, (c) elimination of maintenance, cleaning, painting costs for windows, (d) increased safety from better lighting and removal of diversions of outside windows.

Once the decision has been to air condition, there are essentially three types of equipment that can be installed: electric-drive compressors; steam or gas

turbine driven compressors; and the absorption system.

In the case of a number of our new plants our cost analyses indicated that electric driven machines resulted in substantially higher first cost. While the cost of the electric driven machines was less per ton than either turbine driven or absorption machines, the cost of heavy duty starting equipment and large motor wiring made the over-all first cost higher. This was true despite the fact that the absorption system, for instance, requires piping from the boilers to the absorbers. The increased piping does not present a significant investment and a large part of it is required for the heating system only.

Our first gas air conditioned plant

was at Sulphur Springs in east Texas. There we installed steam turbine driven centrifugal compressors. While the system is entirely satisfactory and is performing well, we went to absorption system air conditioning in later plants. Since our operational experience might be of interest to gas utility salesmen in calling on other plants, I should like to present an analysis of Sulphur Springs as a typical compressor installation and of our Kearney, Neb., plant as a typical absorption installation.

The Rockwell Sulphur Springs plant is primarily a manufacturing center but it also serves as a warehouse depot and service center. It is a 116,000 square foot factory area of windowless construction. It is completely air condi-

tioned by a 425-ton capacity system which employs a steam turbine driven Worthington centrifugal compressor to cool water for the daily required refrigeration. Circulating pumps carry the water to ceiling suspended blower units. Temperature of the water is held at approximately 45 degrees. In cold weather, hot water is circulated through the system for heating the plant. Plant temperature is maintained at 76 degrees F. and relative humidity at 50 per cent.

Two 130 hp locomotive type fire-tube boilers, fired by natural gas supplied by the Lone Star Gas Company, supplied

operating cost of the Sulphur Springs plant, including fuel, power and maintenance, is \$4.82 for the 425-ton plant. This figure represents a unit cost of 1.13¢ per ton operating hour, not including depreciation and interest expense.

The plant at Kearney is quite comparable to Sulphur Springs. Fully gas air conditioned, it has a manufacturing area of 150,000 square feet and an office area of 25,000 square feet.

The mechanical system installed at Kearney consists of two Carrier 16C11 closed circuit lithium bromide absorp-

boiler supplying energy to the office absorber for summer cooling serves a dual purpose. It is manifolded and controlled to supply 180 degrees F. hot water to the office air conditioning units for winter heating. The same piping is used for summer chilled water and winter hot water.

Since electrically driven equipment for the air conditioning system had been eliminated as a result of comparisons previously made, actual bids were taken on both absorption units and steam-driven centrifugal equipment similar to that used at Sulphur Springs. Bids received resulted in equipment costs of approximately \$100 a ton capacity for both types. The bids involved the refrigeration machines specifically but did not include accessories, except for surface condensers in the case of the turbines.

Boiler and boiler accessory cost for absorbers, which perform best at 12 psig steam, is considerably less than that required for turbines which must operate at higher pressures in order to develop reasonable water rates. Operating characteristics of absorbers under varying loads are also much better than for steam turbine units. Under 70 per cent load conditions, the absorption system steam consumption in terms of pounds of steam per ton of refrigeration increases 15 per cent above full load rate. Figures on a multi-stage condensing turbine indicate almost 50 per cent increase in steam consumption. The disparity in steam, i.e., water consumption becomes even greater as the load drops below 70 per cent, and cooling systems normally operate well under full load.

Other factors to be compared between the two systems were cost of maintenance personnel and cost of maintenance parts and materials. It was the considered opinion of our consulting engineers, Allen & Hoshall, Memphis, Tenn., and of manufacturers who make all types of systems, that there was no significant distinction costwise between them. We concluded that all things considered, absorption air conditioning equipment is more economical in first cost than turbine driven compressors.

To further pinpoint the case for the type of equipment to be installed at Kearney, the over-all cost of operation was computed. Average cost of gas, supplied by Northwestern Public Service Company, is 26¢ per 1000 cubic feet. The accompanying charts, supplied by

(Continued on page 25)



Two gas-fired boilers with oil standby set-up, gas absorption air conditioning system and compressors all are in factory's boiler room

steam for the compressor turbines.

Gas bills from the plant's operations indicate an average fuel cost of \$356.72 per month for a typical three-month cooling season operation. Based on an eight-hour day, six-day week operating schedule, the gas cost averages about \$1.57 per hour of operation. Assuming 1.5¢ per kilowatt-hour power cost, the electric energy cost for the system is approximately \$1 per hour.

Assuming the cost of a maintenance mechanic at \$2.25 per hour, the total

machines using steam at 12 psig for cooling the plant. The machines each have a nominal capacity of 485 tons. Estimated load in the plant is 870 tons with peaks of approximately 950 tons occurring when electric furnaces are in continuous use.

The office area is cooled by a completely separate system using a Carrier 16C4 machine with 265 degrees F. hot water as the energy source. The unit develops approximately 103 tons at nominal conditions. The hot water

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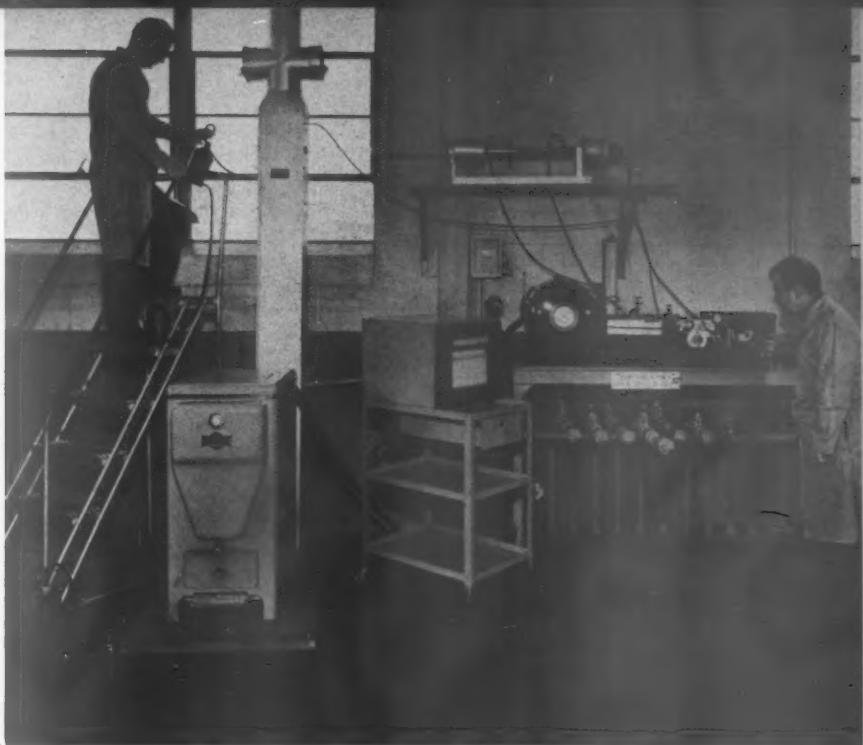
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A. G. A. Laboratories engineers test an experimental gas incinerator for smokeless-odorless performance. Fly ash and smoke evaluation equipment are located at right of test chimney

Labs okay incinerator standard



A revised approval standard for domestic gas incinerators stressing smokeless-odorless performance was recently approved by the A. G. A. Approval Requirements Committee. It becomes effective Jan. 1, 1958. The text has been submitted to the American Standards Association, Inc., for approval as American Standard.

The provisions of this standard have been prepared to apply to new designs of domestic gas-fired incinerators which are essentially smokeless-odorless in operation and have fly ash free effluents. The provisions will be applied to gas incinerators received for approval tests by the A. G. A. Laboratories following the effective date. Manufacturers of incinerators, however, may have their units tested for compliance with the provisions anytime in advance of the effective date. Units approved under this standard are intended primarily for domestic applications and are suitable for the disposal of Type 1 and Type 2 wastes.

Domestic gas-fired incinerators approved by the A. G. A. Laboratories under this standard will be capable of completely incinerating domestic wastes as typified by a mixture of 40 per cent dry combustibles and 60 per cent food refuse. Constituents of the test charge are shown in Table 1 for each bushel of capacity. Uncarbonized material at

the end of the test is not to exceed six ounces per bushel or proportional fraction thereof of the capacity of the incinerator. The test will be performed over a 96-hour period during which time the unit will be charged 6 times with the test load in accordance with the schedule specified.

During the test for incinerating effectiveness, the unit will be made to vent into a test chimney. A test vent draft control, separate from any draft control means or device supplied with or as a part of the incinerator, will be located in the test stack nine feet above the floor level.

During the test for determining temperatures that may develop on adjacent combustible construction when the in-

cinerator is installed in conformance with standard clearances, a charge of shredded newspaper will be used. Incinerators employing vertical flue outlets will have 12 inches clearance on the sides from the test enclosure and the flue pipe will be spaced 18 inches from the rear test wall.

Horizontal flue outlet type incinerators are to be spaced with the sides and rear 12 inches from the sides and rear of the test enclosure and a suitable horizontal flue pipe is to be installed passing through the rear test wall. The shredded newspaper charge, proportioned on the basis of one pound per bushel of rated incinerator capacity, will be introduced into the incinerator chamber intermittently at eight minute intervals.

BASIC REFUSE LOAD USED FOR TESTING DOMESTIC GAS INCINERATORS FOR INCINERATING EFFECTIVENESS

(PER BUSHEL OF INCINERATOR CAPACITY)

CONSTITUENT	FORM FOOD REFUSE	WEIGHT (OUNCES)
Potatoes (white)	½ inch sq. strips	7
Cabbage	¾ inch cubes	3
Oranges (unpeeled)	½ segments	2
Bread (white)	½ slices	2
Rice	¾ inch cubes	2.4
Beef Suet		1
Water		2.6

DRY COMBUSTIBLES	
6 inch squares	6.6
sheets 22½ x 33 inches	3.3
3 foot lengths	3.3

Temperatures on the walls and floor of the test enclosure are recorded at the start of the seventh charge. Temperatures observed are not to exceed 90 degrees F. in excess of room temperature. The temperature of the flue gases is not to exceed 1,400 degrees F. under the test conditions.

Tests for smoke, odor and fly ash are performed during the tests for incinerating effectiveness and during the wall, floor and flue temperature test procedure. The flue gases from the incinerator during these tests will be sampled with a smoke recorder of the filter paper type. The test is conducted for two hours after placing each day's charge into the incinerator during the incinerating effectiveness test and for the entire duration of the wall, floor and flue temperature test. Discoloration of the filter paper by the passage of a sample of flue gases is not to produce a decrease in the surface reflectance of the paper exceeding 40 per cent for more than 10 consecutive minutes during the test periods.

Tests for fly ash, smoke, and condensable tars in the flue gases are based

on the total weight of particulate matter discharged from the incinerator. The weight of particulate matter per cubic foot of flue gases at 500 degrees F. and 50 per cent excess air has been limited to 0.3 grains.

In preparing this standard it was believed that the discharge of a large quantity of very small particles from the incinerator would contribute to air pollution. Consequently, the test procedure was developed on the basis of limiting the total weight of particulate matter released in preference to particle size. It is believed, however, that in view of the weight of large particles, the test procedure will in effect prohibit any incinerator from complying with the provisions if it discharges large fly ash particles.

Three impartial observers will be employed to ascertain whether or not objectionable odors are emitted. The odor of the flue gases is not to be in excess of that which would be produced by burning two sheets of newspaper in an open container. Visual inspection of the incinerator under bright light conditions will be made and the unit shall

show no signs of smoke issuing from any part.

The preparation of this standard has been under way for approximately three years by the Subcommittee on Approval Requirements for Domestic Gas Incinerators. The group is a subcommittee of the A. G. A. Approval Requirements Committee which approved the provisions of this standard by letter ballot.

Preparation paralleled extensive research on gas incinerators sponsored as a PAR Plan activity by the Association's Committee on Domestic Gas Research under Project DA-1-M. This research pointed the way toward incinerator designs providing essentially smokeless, odorless performance. Equipment manufacturers and others freely contributed to the preparation of the standard and pioneered the development of units complying with this standard.

Copies of the *Proposed American Standard Approval Requirements for Domestic Gas Incinerators* in typewritten form are available from the A. G. A. Laboratories. Printed copies will be available following approval as an American Standard.

Meet your Association staff



Stan Setchell

Stan Setchell, a man of purposeful action, starts his business day with effervescence—downing a six-ounce bottle of Coke. Next, he tackles his voluminous stack of incoming mail, answering with an equally scientific approach the usual queries—"Would you suggest that we paint our operating trucks yellow?" and the unusual ones—"Could you please send me a flowerpotful of radioactive dust for a high school lab experiment?"

On many days, there are meetings of one of the 43 committees and subcommittees of which he is secretary. If not, there are always preparations to be made for the Section's major conferences—"These conferences are the best way we know of having operating men exchange ideas and iron out mutual problems."

After five, the Long Island Rail Road transports Mr. Setchell to his family—wife and five children. "There's always work to be done at home. Adding a wing to the house, or fixing up our yard, or building a dock for our 25-foot boat—I've owned that craft for 19 years now,

and the maintenance work on it alone is practically a full-time job." And of course there are more meetings, with special duties like merit badge counselor for the Boy Scouts, secretary of the Sequams Property Owners Association, and lieutenant commander in the U. S. Naval Reserve.

On weekends, there may be a trip to Connecticut, "where my membership in the Branford Electric Railway Association gives me the privilege of operating one of their museum-piece trolleys on their 1½-mile track."

Summer vacations are spent at home: "Twelve years ago we looked for a good place for a summer home, and then built a year-round home on the site we found."

Before joining A. G. A. in 1936, Mr. Setchell was employed by Brooklyn Union Gas Co. as were his father, uncle, and grandfather before him. "I owe a lot to Brooklyn Union," he admits. "If it weren't for them I wouldn't be here now."

Why? "You see my father met my mother there. She was the boss' daughter."

Gas in Soviet Russia

Citing the "immense advantages of the use of natural gas over other fuels in Soviet Russia," Nikita S. Khrushchev reports that in the next ten to fifteen years the extraction and production of natural gas in Russia should increase approximately thirteen to fifteen times.

The First Secretary of the Soviet Communist Party, as part of an announcement regarding industrial progress in Russia, made the following statement:

"It is necessary to draw special attention to the greater use of gas and oil instead of coal. On this point we are seriously lagging behind."

"It suffices to say that the proportion of natural gas in the total extraction of basic types of fuel is about four per cent, despite the fact that the country has extremely large resources of natural gas.

"A better use of gas and oil in Russia is of considerable advantage. And in view of the immense advantages of natural gas over other fuels, it is envisaged to increase in the next ten to fifteen years the extraction and production of natural gas in Soviet Russia by approximately thirteen to fifteen times.

"This will make it possible to use natural gas not only

as a fuel but also for obtaining nitrate fertilizers and many other chemical products. The gases obtained as by-products of oil are the best raw material for the chemical industry.

"Together with the large-scale housing drive, the wide use of gas in daily life will be the most important factor contributing to an improvement in the well-being of the Russian people. This will also make it possible to eliminate the pollution of air in towns and workers' settlements and will improve the hygienic conditions of life."

Mr. Khrushchev said that according to rough preliminary estimates, it is intended that in approximately fifteen years, Soviet industrial output should include: gas, 270,000,000,000 to 320,000,000,000 cubic meters; electric power, 800,000,000,000 to 900,000,000,000 kilowatt hours; coal, 650,000,000 to 750,000,000 tons; petroleum, 350,000,000 to 400,000,000 tons.

The Soviet leader put Soviet electric output this year at 210,000,000,000 kilowatt hours which indicates the use of electric power should increase about four times in the next fifteen years as compared to natural gas' expected growth of from thirteen to fifteen times.

New headquarters

CONSTRUCTION in downtown Los Angeles of a 13-story headquarters office building has been announced by Southern Counties Gas Company. The building is expected to cost \$2,250,000. The property adjoins existing buildings of Southern California Gas, which will use the ground floor of the new structure as display and customer contact area. Also to be housed in the new building will be Pacific Lighting Gas Supply Company, and local executive offices of the Pacific Lighting Corporation, the parent organization.

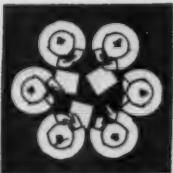
LP Council elects Sorby

CARL SORBY, vice-president of Geo. D. Roper Corporation, wholly owned subsidiary of the Florence Stove Company, has been elected president of the National LP-Gas Council. Mr. Sorby, who has been Executive Committee chairman, succeeds A. H. Cote, general sales manager of Suburban Propane Gas Company. Mr. Cote has become chairman of the Council's advisory board. New chairman of the Executive Committee—second-ranking post in the Council—is W. F. Devoe, manager of gas sales, Phillips Petroleum Company. Harry J. Morley, vice-president of the Fauce Hot Heater Company, was re-elected treasurer.

Home Service Committee meets



The Home Service Committee held its general committee meeting in Washington, Oct. 30-31, with Betty Anne Morgan (seated, 3rd from l.) of Baltimore Gas and Electric presiding. Plans made include completion for printing of the revised booklet "Home Service a Career"; and instruction for customer and demonstration ideas for promotion of automatic top burner heat control



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons

Assistant to the Personnel Manager
Philadelphia Electric Company

● Bonus paid to former employee held "wages" at time of payment—The Internal Revenue Service rules that bonuses paid to former employees, but attributable to services performed while they were in employee status, constitute "wages" at the time of payment for purposes of the Federal Insurance Contributions and Federal Unemployment Tax Acts. Bonuses received by former employees after reaching age 65 are not excluded from "wages" under the two statutes.

The questions arose in connection with a bonus arrangement established to provide greater incentive to employees by rewarding them with additional compensation in the form of cash, common stock, or cash to be invested in such stock for their inventions, ability, industry, and loyalty to the employer. The company maintains a bonus fund for this purpose. Payments are made in installments, the first, amounting to one-fourth of the total, being made at the time of award. The balance generally is paid in equal annual installments. Generally, an employee leaving the service of the employer receives the undelivered amount of his award that is credited to his account; the unpaid balance is credited to employees at a specific percentage per month.

● Training defeats the shortage of skills—In the Avco Lycoming Corporation at Stratford, Connecticut, a training program has unearthed "acres of diamonds." This plan has done much to reduce turnover, the need for recruiting, and has prepared skilled workmen to take on greater responsibilities.

Fred H. Corbett, director of training at this company, is very enthusiastic about the results of the training program now in operation. In six years they added nearly 6,400 employees, but they were still short of many skilled operators and designers, their expenditures for advertising were high, and their turnover of new people seemed just as high.

Since the beginning of this "acres of diamonds" training program a year ago, the story has been different. This program develops skills among the employees and has paid dividends as follows:

Turnover is below 1½ per cent per month; the budget for recruiting and advertising has been drastically reduced; the machine course is producing 12 lathe operators every 60 days; 13 skilled mechanics have been qualified as process engineers; and in four months, they were able to create

skills that could not be recruited and produced 16 fully qualified aircraft engine sheet metal mechanics.

Over 1400 of their 3400 production, technical, and engineering employees have taken part in 12 major training courses with stimulating results.

● Tardy communications—Faced with a strike or other crisis, many a long-silent company has tried to rush through a crash communication program to gain understanding from its employees. And rarely has this been successful. Why? Communications must be a way of life, a long-distance program built for endurance. That's the opinion of Joseph M. Bertotti, manager, public and employee relations research, General Electric Company, New York, speaking this year at the 39th annual Silver Bay Conference on Human Relations in Industry at Lake George, New York. He said, "We know of no quick formula that will light the lamp of communications that should have been burning for years."

● Court decisions—*Wives as part of the employment relationship*—Must employers pay employees' wives for time spent by them in helping their husbands perform their jobs? This ticklish question was presented to the 9th CA which answered it with a resounding NO! The appeals court ruled that wives who help their husbands in their jobs are not "employees" when their work is voluntary, unknown to the employer and not under his direction and control. Since they were not employees, they were not entitled to wages under the federal Wage-Hour Law (*Barras v. Salt River Valley Water Users' Association*).

The case arose when the wives of a number of employees of an irrigation association sued their husbands' employer for unpaid wages on the theory that their relation to their husbands was that of "co-employees" rather than mere "helpmates." Each employee was in charge of 4,000 acres and his duty was to supply water to farmers in the quantity and at the time that they needed it. Because of the nature of the job, the employee is supplied a home, equipped with a telephone, office equipment, filing cabinets and the like. The wives complained that they performed both clerical and field duties which benefited the association, that their work was required since, if not performed, their husbands would be fired, and that their aid was necessary to the efficient performance of their husbands' jobs. The white-collar aspect of their "duties" was answering business calls, transmitting information to users and association employees, keeping records, making reports and performing filing work. In the field, they turned on water, made farm changes, opened gates, and

cleaned ditches. The association vigorously denied that the wives were "employees." Any work they performed, argued the association, was voluntary, without its knowledge, and without the expectation of receiving compensation.

The trial court found that the wives were not employees since the association did not "suffer or permit" (the definition in the Wage-Hour Law of "employ") them to work for it. The association did not require that the wives help their husbands; it did not instruct them as to duties to be performed; it did not control the use of their time; and it did not object to their holding other jobs with other employers.

● Group way to sell economics—Remember the story of the two farmers who were on shipboard? One rushed up to the other and shouted, "The ship is sinking!" The other one said, "Let her go. She ain't ours!" This is the economic concept many employees have about business, says Kenneth McFarland, education consultant, General Motors Corporation. Says he:

"We are going to have to start teaching again a great fundamental truth. All those engaged in a particular enterprise are on the same boat. This means labor, management, and stockholders. They all have a common denominator, whether they realize it or not. That common denominator should be their interest in keeping the ship afloat."

● Chart makes them all members—W. R. Griffith, director of quality control, Avco Lycoming, Stratford, Connecticut, is practising what many other managers only preach. He feels an organization chart is more than a set of lines and boxes. It is something filled with people. And even the least of the people who form the organization should see where they fit in.

A chart board hangs opposite Mr. Griffith's desk. It details the entire quality control organization down to the last file clerk. Each employee's name is contained in its own brass name-plate slot. Colored inserts distinguish the various shifts.

The chart helps Mr. Griffith tell at a glance how his organization shapes up from day to day. "More important," says he, "an employee is not a vaguely remembered face or a number. He or she is an important member of the organization who belongs in a specific place and has a specific job to do there."

● Vintage source for suggestions—Maybe your plant is overlooking one of its wisest sources for better ways to do things—retired employees. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Connecticut,

cently invited (via its employee newspaper) retirees to submit suggestions by mail. Joseph Glennon, suggestion committee chairman, says these suggestions will receive the same consideration and rewards as those from present employees.

● Old timers' homecoming—Last spring the traditional Homecoming Day for alumni took on a new look at Worcester, Massachusetts. Instead of old grads returning to an ivy-covered campus, almost 400 retired employees returned to the Norton Company for a "Retiree Homecoming Day."

The "Day" was a five-hour program that gave former employees a chance to renew old friendships and to learn of changes made since their departure. In the morning they attended an informal coffee period, at lunch heard a few short talks from company officials, and in the afternoon visited old stamping grounds. Norton's Homecoming Day Committee, staffed by six retirees, attributes the day's success to these rules:

Keep the program informal.

Give retirees plenty of time to visit one another. That's the main reason they come.

Hold speeches to the minimum, and keep them general in nature.

Avoid organized tours. Retired employees don't want to be herded about. Each has people or things he wants to see. Let them set their own pace.

● Toward better placement—Ever stop to think that everybody is physically handicapped in some way? That each of us has his physical limitations? Sounds fantastic, doesn't it! But look at it this way.

Take the toughest manual job in your plant. Maybe it's digging, pushing, shoving, pulling something—or it may require a worker to climb five flights of stairs half-a-dozen times a day. How many employees do you think are physically qualified to do the heaviest of your jobs? Half? A quarter? Ten per cent? Maybe, but odds are that only about one per cent are the kind of supermen needed to do the most arduous physical work. You will find that the rest of your employees have lesser abilities in varying kinds and degree.

What does this mean to you? Fitting workers' physical abilities to jobs cannot be taken lightly. When it is, you find accidents, illnesses, and all sorts of maladjustments cropping up.

What's the answer? Better job placement—especially of new workers, aging workers, female workers, and those recovering from illness or injury.

How do you do this job better? Obtain a copy of a very helpful book called *Physical Abilities to Fit the Job*. It has no ax to grind, just lots of helpful facts and formulas for industrial engineers and other management people who must face this problem.

Originally prepared for internal use at the American Mutual Liability Insurance Company, the book is now available for \$2.50 a copy to cover its printing and handling costs. To obtain a copy, write to the company's engineering department at 142 Berkeley Street, Boston 17, Massachusetts.

● Ideas that got away—"Don't spend your lifetime protecting your one big idea," says

Charlie Clark, well-known brainstormer from Ethyl Corporation, New York. "Otherwise you may never get another one."

"Too many people get a good idea, then hide it for the rest of their lives for fear someone else will steal it or take credit for it," Charlie says. "This kind of person devotes so much of his creative energy to protecting the idea he already has that he never produces another one."

So loosen up on your ideas. Don't hoard them. They won't do anyone any good unless you put them into circulation.

● Arbitration decisions—*Arbiter upholds company in dispute about insurance*—Arbiter Dallas M. Young holds that three employees who were off from work because of illness when a sickness and accident insurance plan took effect are not entitled to benefits under the plan, inasmuch as the insurance company assigned to carry the benefit plan said that such employees could not be covered until they returned to active employment.

Mr. Young's decision was made in a dispute between Dayton Steel Foundry Company, Dayton, Ohio, and the three employees backed up by their bargaining agent, Local 4760 of the Steelworkers.

The union contended that it had an agreement with Dayton, not with Metropolitan Life Insurance Company, the carrying agent. The employer company agreed to pay benefits under the collective bargaining contract dated June 1955, the union said, and it is immaterial to the union whether the employer bought insurance or carried it on its own. So, if the insurance company will not compensate sick employees, the employer is required to do so, the union argued.

The employer held that the contract did not require the company to pay the benefits; rather, the contract required only that the company pay for "sickness and accident insurance."

Mr. Young sides with the employer. He says:

"At no point in the labor relations agreement between the parties can one find the statement that Dayton Steel Foundry would carry self-insurance. The evidence strongly suggests that the union did not expect the company to provide self-insurance. . . ."

"Negotiation of the health insurance policy was left to the company. One of the conditions entered into the policies was that the health insurance applied to an employee 'while insured.' Furthermore, in accordance with practices common in group coverage, any worker who was ill and off from work at the time the contract was entered would not be covered until he had returned to active employment. There was nothing in the contract which prevented the company from entering a group health insurance program which included the preceding limitations."

● Employee may not insist on 30-day trial to decide if he wants job he bid on—An employee may not insist that his former job be held open for the full 30 working days allowed as a trial period while he makes up his mind whether he actually wants to go through with transfer to a different job, according to an award by Arbiter Meredith Reid.

Mr. Reid agrees with Local 240 of the Meat Cutters and Butcher Workmen that the probationary period is for the protection of the employee as well as of the company, but he rules that once management has made up its mind to accept the employee on a permanent basis, the employee must make up his mind whether he wants the job.

Pennsylvania Powder Company, Emporium, Pennsylvania, argued that an employee who bids for a job has indicated his desire for it, subject to the company's approval. The trial period is for the company's benefit, this argument ran; once the company determines that an employee has had a reasonable trial and is satisfactory in the new job, the employee has won the job. It is not necessary for the trial period to run 30 working days if management is satisfied with less. And once the employee has proved himself in the new job, his former job becomes a vacancy which is posted, and on which bids are received in accordance with the contract.

● NLRB rulings—*Board sees no "benefits" in employer letter to workers*—A Murdock-Rodgers-Bean panel of the National Labor Relations Board disagrees with contentions of Teamsters' Local 728 that a letter sent by an employer to employees a week before a representation election illegally made promises of benefits to workers if they would vote against the union.

After losing the election at Crown Food Products and Crown Candy Company, Atlanta, Georgia, Local 728 contended that the voting results should be set aside because a week before the election Crown sent employees a letter stating:

"1. The truth of the matter is that the unions cannot get you a single thing that you could not get easier and cheaper without the union (and)

"2. We have been greatly encouraged that so many of you have voluntarily told us that you had thought this matter over and had decided that your present and future interests lie with your company instead of with the union. Your expressions of friendship and confidence are greatly appreciated and we are not going to forget about them."

The union asserted that the company's statements amounted to illegal promises of benefit if employees would vote against the union. The vote was 49-to-28 against the Teamsters.

But the Board panel, in certifying results—to the effect that the union is out of the plant—states:

"Contrary to the petitioner's argument we do not interpret either of the above statements as being promises of benefits to employees to induce them to vote against the petitioner. We view the first statement as a privileged statement of the employer's opinion that no more can be achieved through a union than can be achieved by direct dealings with management. Further, we find that the second statement, although somewhat vague in meaning, cannot be reasonably interpreted as containing a promise of benefits to those who vote against the petitioner; it cannot be reasonably concluded that because the employer will not 'forget about' employee expressions of 'friendship and confidence' that the employer will reward employees for voting against the petitioner."

Accident Prevention Committee to conduct safety courses for supervisors in 19 states during 1958

Informed supervision=safety

By J. THEODORE WOLFE

*Chairman
Executive Safety Committee
President
Baltimore Gas and Electric Co.*

In 1958, the gas industry, through the American Gas Association, will put into action an accident prevention plan which I believe to be the most ambitious positive approach to sound employee accident prevention ever undertaken in the United States by an entire industry.

The main feature of this program will be a series of accident prevention courses held throughout the year, in 19 states, at which supervisory personnel will be given training by R. N. Papich of A. G. A. and Accident Prevention Committee safety experts in the fundamentals of effective accident prevention and control.

This series of courses will represent the culmination of a gas industry employee accident prevention program which has been gathering momentum for the past several years. Important results are expected, in the form of millions of dollars of savings on insurance charges, compensation, lost time and property damage, as well as in lives saved and human suffering avoided.

In order to understand and appreciate this ambitious plan, it is necessary to know a little of the background that has led up to the 1958 program and made it possible.

The gas industry's high employee accident frequency rate in 1947 alarmed enough of our key executives to lead at that time to the re-vitalizing of the A. G. A. Accident Prevention Committee. One of the first steps taken was to



J. Theodore Wolfe (l.) gives mandate to conduct accident prevention through informed supervision courses in 1958 to E. C. Baumann, safety engineer, Public Service Electric and Gas Company, Newark, N. J., and chairman, Accident Prevention Committee.

increase the membership of the committee to make it a group with truly national representation. In the new committee, members representing every part of the United States and Canada, and every segment of the industry were included.

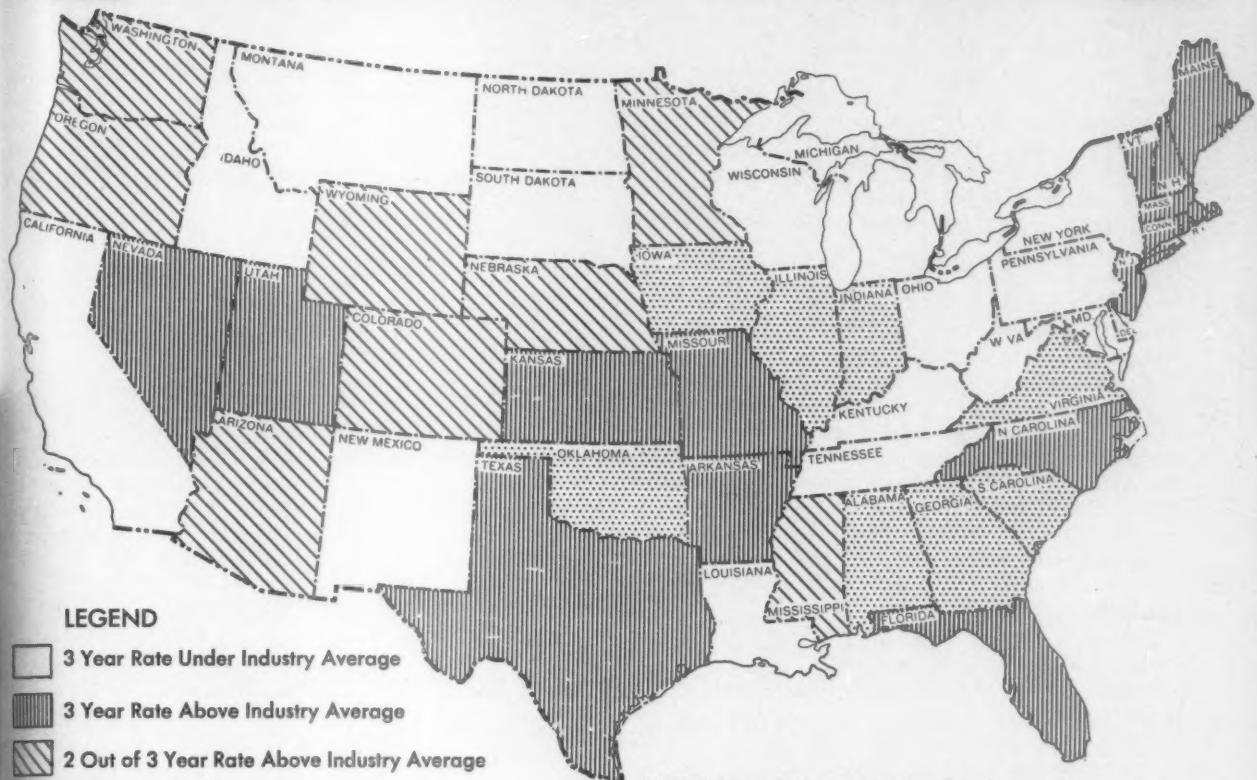
Soon after this reorganization of the Accident Prevention Committee, an annual National Accident Prevention Conference was established. In 1952, Association officials decided also to form an Executive Safety Committee composed of top gas industry executives. This step not only set up new channels of communication, but gave notice to every gas company that top management in the gas industry was actively interested and would support accident prevention efforts.

Following shortly on this development was the preparation and publication of a new and now very popular and widely used quarterly publication, *How Injuries to Gas Men Might Be Avoided*. Also published in 1953 was the sorely needed booklet *Setting Up Your Safety Program*, the first attempt to give gas companies assistance in organizing their own accident control programs.

The preparation and production of films, both movie and 35mm black and white and color sound slide films, was also started in the early '50's, with the result that A. G. A. now has nine films on gas industry accident prevention problems and recommended solutions, available for sale or loan.

In 1954, the annual Employee Acci-

1954, '55, '56 ACCIDENT FREQUENCY RATES BY STATE, COMPARED WITH INDUSTRY AVERAGE IN EACH YEAR.



LEGEND

- 3 Year Rate Under Industry Average
- 3 Year Rate Above Industry Average
- 2 Out of 3 Year Rate Above Industry Average
- 1 Out of 3 Year Rate Above Industry Average

NOTE: Refers to frequency rates, for all operations, of companies headquartered in each state, and not to operations occurring only within the particular state.

dent Experience booklet was enlarged to include company safety records, the list of all companies receiving accident prevention awards, the position of all states in the industry in regard to accident prevention, and the position of the gas industry in comparison to other major industries.

In late 1954, the first two-day course on "Accident Prevention Through Informed Supervision" was conducted on a pilot basis. Its success and acceptance has since resulted in 21 such courses being conducted for 168 gas companies graduating 678 superintendents, supervisors and foremen.

During the past three years, a tremendous amount of work has been carried on by members of the Accident

Prevention Committee in developing training aids. Chief among these were the nine Safety Flipcharts produced this year, illustrating specific gas industry safety problems and solutions. Two manuals on suggested safe practices were published; three series of 12 posters each were produced; a National Fleet Safety Contest co-sponsored by the National Safety Council, was established; and a booklet for gas industry motor vehicle drivers, entitled *The YOU Factor in Accident Causes* and tailored to gas industry needs and problems, was published.

All of this preliminary work was necessary before we could embark on our 1958 crusade. The Association is now ready not only to inform its mem-

ber company superintendents, supervisors and foremen on what it takes to avoid accidents, but can supply them the tools and aids which we have available to assist them in doing the job.

During these past three years, a great deal of time also was spent in assembling the data necessary to give us a clear picture of our problem. The data showed that there were 15 states in which the composite accident frequency rates of the gas companies were above the gas industry average for the last three years. Companies in eight states had an accident frequency rate above the industry average for two out of the last three years; and in eight states the composite company frequency rate was above the average for one out of the

past three years.

During 1958, as chairman and spokesman for the Executive Safety Committee composed of these industry leaders:

Ernest R. Acker, president, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.; John H. Carson, vice-president, The East Ohio Gas Co., Cleveland, Ohio; Grove Lawrence, vice-president, Southern California Gas Co., Los Angeles; E. C. McGraw, president, Transcontinental Gas Pipe Line Corp., Houston, Texas; R. M. Power, president, The Gas Service Company, Kansas City, Mo.; Leonard B. Richards, vice-president, Harrisburg Gas Div., The United Gas Improvement Co., Harrisburg, Pa.; Charles G. Young, president, Springfield Gas Light Co., Springfield, Mass.

I have asked the Accident Prevention Committee to make a maximum effort to conduct the "Accident Prevention Through Informed Supervision" course at least once in locations available to every one of the states reflecting a fre-

quency rate above the industry average during the past three years. This means that a minimum of 20 courses are scheduled during 1958. I plan to write the chief executive of each company in these states and ask him to cooperate by having key operating supervisors as well as the person responsible for his company's accident prevention efforts attend the course when it is conducted in his area.

Complete coverage

Each of the two-day courses will give complete, concentrated coverage of the essentials of an effective day-to-day company safety program. They will give supervisory personnel an understanding, which they can pass on to those working under them, of such subjects as these: how to organize a safety program; how to communicate on safety; fact finding through use of accident report forms; how to get safe practices accepted by employees; how to plan, organize and conduct an effective safety meeting; un-

derstanding human motivation as related to safety; how to maintain interest in safety, especially through management support; and accident prevention principles, including job planning. The courses will be conducted by Accident Prevention Committee members through illustrated lectures, films, slides, and active discussion.

If we are successful in this extraordinary endeavor, what will be the results?

First, the manual rate of insurance for gas companies should be lowered in the next three years, with a resulting saving of thousands of dollars on insurance, both for individual companies and for the gas industry collectively.

Second, millions of dollars will be saved by our industry, that are now being spent for compensation costs resulting from disabling injuries.

Third, and most important, our employees and their families will be spared the hardships and suffering that are the products of accidents.

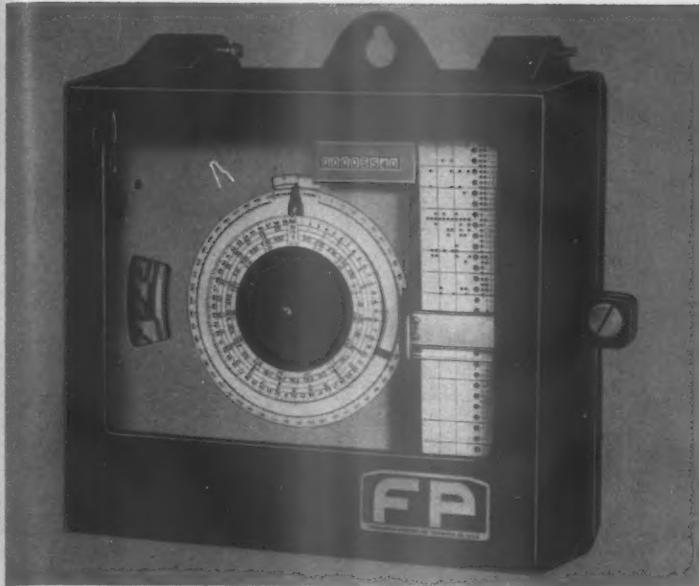
"ACCIDENT PREVENTION THROUGH INFORMED SUPERVISION" COURSES SCHEDULED FOR 1958

JANUARY	APRIL	JULY	OCTOBER
Houston, Texas—S. Owens* G. V. Atkinson R. L. Conway	Atlantic City, N. J.—E. C. Baumann* T. Gray V. A. Howell	Denver, Colorado—M. Bendekovic† M. Travis C. Williams	Little Rock, Ark.—G. V. Atkinson* W. Vance Smith R. L. Conway
Tulsa, Okla.—W. Smith‡ C. Williams E. Shay	Indianapolis, Ind.—B. Lorenz‡ J. Lambert H. Holmes		Atlanta, Ga.—J. Hickey‡ S. Owens R. L. Conway
FEBRUARY	MAY	AUGUST	NOVEMBER
Tampa, Fla.—J. Hickey* R. L. Conway S. Owens	St. Louis, Mo.—E. Shay* C. Williams Wm. J. Easton	Las Vegas, Nev.—E. E. Taylor* M. Bendekovic	Boston, Mass.—A. L. Dowden* C. O'Reilly C. Pendleton
Jackson, Miss.—R. L. Conway† S. Owens G. V. Atkinson	Minneapolis, Minn.—M. Travis† J. Lambert	Portland, Ore.—A. Willist† E. Taylor	J. McMaster
	Sioux City, Iowa—M. Travis‡ C. Williams		
MARCH	JUNE	SEPTEMBER	DECEMBER
Raleigh, N. C.—R. McEldowney* C. Cummings	Kansas City, Mo.—C. Williams* M. Travis W. V. Smith	Dallas, Tex.—R. Conway* S. Owens G. V. Atkinson	Open
Richmond, Va.—C. Cummings‡ R. McEldowney R. Coleman	Chicago, Ill.—E. Beaumont‡ J. Lambert B. Lorenz		

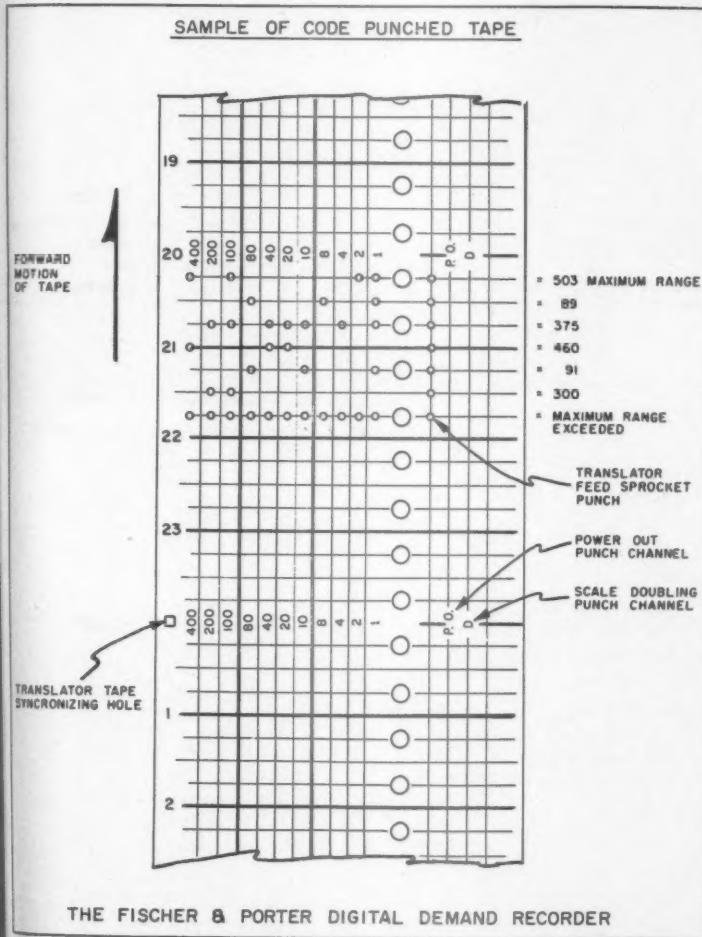
1st Priority*—The state has a 3 Year Rate Above Industry Average

2nd Priority†—The state has a 2 Out of 3 Year Rate Above Industry Average

3rd Priority‡—The state has a 1 Out of 3 Year Rate Above Industry Average



The digital demand recorder introduced by Fischer & Porter Co.



FP recorder adaptable to gas use

The Fischer and Porter Co. of Hatboro, Pa., has recently introduced its new Digital Demand Recorder and Automatic Translator. This recorder, primarily developed for recording load research and customer demand billing data for electric utilities, is readily adaptable to similar recordings of gas usage.

It operates from contact closures representing power or gas consumption. The recorder produces an easy-to-read punched paper tape showing energy demands, which can be automatically translated by means of the automatic translator into punched cards for processing in IBM equipment.

The company claims that its recorder has a number of advantages over other comparable equipment. These include low cost, low maintenance and long life insured by a basically simple and reliable mechanism; easy readability of the punched tape by visual means where desired; quiet operation to eliminate customer annoyance; each tape roll sufficient for a three month period using 15 minute demand intervals, or for one year using 60 minute demand intervals; not affected by temperature or humidity; positive sequential mechanical interlocking assuring proper punching and zeroing; and if the maximum range is exceeded this information is immediately punched on the tape.

(Continued on page 28)



The new packaged "Mayfair Matchless All-Gas Kitchen" is given first public showing by the Lone Star Gas Company, at the State Fair of Texas "Kitchen Show" in Gas Building



Chester May, senior vice-president of Lone Star Gas, addresses attendees at Tuesday luncheon meeting



C. S. Stackpole of A. G. A. speaks at Tuesday luncheon meeting. With him is Mrs. Stackpole

Lone Star Gas pushes Mayfair package kitchen

Lone Star Gas Co. is the first gas utility to conduct active sales and promotion of the Mayfair packaged kitchen unit featuring all-gas equipment.

The new "Mayfair Matchless All-Gas Kitchen" was given its premier public showing by Lone Star at the 1957 State Fair of Texas in Dallas, where it was viewed by many of the more than two million persons who attended the Fair.

This showing marks the first step by the gas industry in a load-building program to capture a share of the packaged kitchen market for new and remodeled homes. Many executives call this the biggest potential load within reach of the gas utilities.



Utility personnel are interested in examining Mayfair gas kitchen and laundry display set up in the lobby of the Baker Hotel at Mineral Wells, Texas

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ISSUE OF DECEMBER, 1957 ADVERTISING



Meeting are (l. to r.): Ken Muldoon, A. G. A.; C. G. Barndt, Lone Star; J. J. McKeon, Laclede; Harold Jalass, Cribben & Sexton; Cy Young, Gas Service

The new Mayfair Kitchen is fully competitive in all ways with the packaged units offered by the large electrical manufacturing firms; in fact, it could be called more competitive than most since a complete all-gas kitchen will be available in a lower price range than the electric packages.

Lone Star announced its plans at a two-day seminar in September in Mineral Wells, Texas, attended by more than 250 gas utility and manufacturing executives from throughout the nation.

An imposing list of speakers at the seminar, all leaders in various fields of the gas industry, emphasized the importance of other utilities following the

lead of Lone Star through complete affiliation with the Mayfair program.

As announced at the meeting, Lone Star's promotional plan will consist of the following points:

In its area, the company will administer a cooperative program of advertising and promotion in which Lone Star, Mayfair and various appliance manufacturers will participate.

Lone Star will place kitchen displays on all of its display floors, with complete kitchens in larger offices and major kitchen components, such as cabinets and burner cabinets, in smaller offices.

The new Mayfair Kitchen will be used in all of Lone Star's auditoriums

wherever practicable. The company now has in use or in planning stages some 30 of these auditoriums with fully equipped kitchens, which are used by home economists for demonstrations, cooking schools and similar functions.

Each of the 101 Lone Star sales floors will have complete promotional material, showing the prospective customers how the kitchen can be purchased and telling what the approximate cost would be.

Lone Star will feature Mayfair Kitchens in its exhibits, such as the State Fair of Texas, Home Builders' Shows and local fairs.

The company's architect and builder assistance representatives will keep their



Lone Star's Doris Pannell is shown in kitchen which can be purchased—completely furnished—for less than \$2,000

contacts accurately informed on all new developments in the Mayfair equipment. Lone Star will familiarize all of its some 6,000 employees with the kitchens and on how they can be purchased. The company plans to provide financing assistance for dealers and purchasers where necessary through banks, FHA Title I loans or to conduct its own plan, if necessary.

Kitchen design service will be offered. Lone Star plans to tie in the kitchen promotions with all other promotions, using all types of media. The company will begin its program by setting up dealers to handle the kitchens, with Lone Star's principal task that of promoting kitchen sales.

A seven-point "profit plan" is expected to assist Lone Star greatly in acquiring reputable dealers with outstanding sales records to handle the kitchens. This plan includes the State Fair of Texas display, television advertising, special mailings to architects and builders, advertising in local builders' magazines, exhibit homes, increased newspaper advertising featuring kitchens, and special advertisements to tie in directly with the Mayfair dealer.

Mayfair Kitchens are manufactured by the Mayfair Cabinet Corp. of Fort Worth and Mineral Wells, the world's largest manufacturer of factory finished wood kitchens. Constructed of the finest quality hardwood, Mayfair cabinets are modern in design, yet have a distinct custom appearance. Drawer fronts are of modern "tear drop" design with recessed pulls. The cabinet doors feature

underside recessed pulls and concealed hinges; no hardware is visible, except for the small cutout for the concealed hinges. Cabinet drawers use special furniture-type hardwood guides, and drawer bases and cabinets have standard recessed bottoms for ample toe space.

The history, background and status of Mayfair was outlined by Neal Schuman, master of ceremonies for the seminar.

"For the past year many people have asked the question, 'Who is Mayfair?'" Mr. Schuman said. "This question was asked not only by personnel of gas utilities and gas appliance manufacturers, but also by people in other groups such as advertising agencies, trade and industry publications, management consultants and business research organizations . . . to say nothing of manufacturers in the "Live Better Electrically" category.

"Briefly, the people who are producing Mayfair Gas Kitchens and Laundries are the pioneers of factory finished wood cabinets . . . Jack Siegel and his son, Martin. Incidentally, it is interesting to note that before the start of the 20th Century, the father of Jack and the grandfather of Martin, started in the wood fabricating business with his own sash and door mill work plant. The father and son now operate plants in Brooklyn, New York; Bennettsville, South Carolina; as well as factories in Fort Worth and Mineral Wells. The Mayfair merchandising and advertising offices are located in Fort Worth with the plant itself located in Mineral Wells.

"Mayfair was actually born a little more than a year ago when a group of people from Lone Star Gas Company met with officials of Texboro Cabinet Corp. for a routine discussion. The theme of that discussion was certainly no more than 'what can we do for each other?' But the ideas gathered and discussed at this meeting marked the birth of Mayfair Matchless Gas Kitchens and Laundries.

"Three men, Charles Barndt and Les Stephenson of Lone Star Gas and W. S. Kimball, merchandising director of Mayfair, deserve the lion's share of the credit for putting this package together. Basically, the points to remember in this program are: First, Mayfair is gas and only gas; the program is now operated so that the utilities control the distribution through distributors, dealers, or in any combinations of these it chooses; the gas utility is in sole command of distribution at the local level.

"To sum up Mayfair's over-all program: it ties together the gas utility, the appliance manufacturers, kitchen and laundry manufacturers, distributors and dealers. In other words, all phases of distribution, marketing and merchandising are covered."

Appliances used in Mayfair all-gas kitchens will be chosen on the basis of quality and national acceptance. These appliances will consist of a line of nationally advertised free-standing and built-in gas ranges and ovens, disposal units, dishwashers, automatic washing machines and gas dryers, countertop built-in food mixing units, and gas in-

Mayfair's Neal Schuman emcees morning session. Seated (l. to r.) are: K. Muldoon, H. Jalass, B. Griffiths, D. Mayne, and J. J. Marcus, Jr.



cinerators.

Only those appliances whose manufacturers agree to promote these all-gas kitchens will be chosen as standard equipment, giving a combined industry-wide promotion program for consumer advertising and promotion.

At the recent Mineral Wells meeting Mr. Barndt, director of sales and promotion for Lone Star, reviewed the industry's search for an all-gas kitchen as he announced Lone Star's plans. Mr. Barndt said, "We have attempted to develop a cooperative program with other cabinet manufacturers and although these manufacturers have always indicated an interest in working with the American Gas Association and our company, they market their products through independent distributors and dealers who appear to have given in to the overwhelming weight of 'Live Better Electrically' promotions. Our relations with these dealers and distributors are good, and we believe they sincerely appreciate our exhibits at the State Fair and Home Shows but when a customer indicates an interest in electric equipment, they will make no effort to sell the superior features of gas. Of course, there are exceptions to the general condition but the vast majority of dealers and distributors follow the electric pattern."

"It has been apparent for some time that the gas industry vitally needs a complete package kitchen consisting of cabinets and the basic appliances. The package kitchen is destined to play an even more important role in the tremendous remodeling market of tomorrow than it has in the new construction field. No one manufacturer produces all of these components so it was evident that we would have to find a firm who would assemble and promote such a complete package. Our hat is off to the Mayfair Cabinet Corporation—for they have developed such a complete package and proposed to sell it with the most aggressive gas promotion our industry has ever seen. They will be able to do this, because Mayfair is a company rich in resources and manufacturing 'know how'—with their affiliated companies they are now the country's largest producer of wood cabinets.

"Moreover, they believe in the gas industry and have already invested many thousands of dollars in their gas kitchen program without asking the gas utilities to contribute a single penny to the venture. Furthermore, everything that they

New high school honors late Samuel Klein



Nathan Klein (l.), chairman of Caloric and one of the sons of the founder, is present at ceremonies dedicating the auditorium to a high school to the late Samuel Klein. Also shown are Dr. Alvin Kemp, superintendent emeritus of Berks County schools, and R. S. Merker (r.), supervising principal

THE NAME of Samuel Klein, founder of Caloric Appliance Corporation, was perpetuated Oct. 31 at dedication ceremonies of the new Brandywine Heights Joint High School, Topton, Pennsylvania.

The auditorium and industrial wing of the newly constructed school were named in his honor and a cast aluminum plaque noting this was placed in the main lobby.

Caloric, whose plant is situated at Topton, donated the 31 acres of ground upon

have told us they were going to do, they have done in even a bigger way. Mayfair is indeed composed of men of vision and action.

"Our company believes in Mayfair and the contribution it can make to the gas industry. It is true that Mayfair is a new name in the kitchen field, but I can assure you that it will soon be a well-known and respected name in the area served by Lone Star Gas Co."

C. S. Stackpole, A. G. A. managing director and principal speaker at the seminar, said the job of actually selling the all-gas kitchens and full cooperation with Mayfair, is the job of the gas industry today.

"It's going to take plenty of money . . . it's going to take a lot of 'imagineering,' initiative and aggressiveness. And I suppose, above all, it is going to take the 'will to do.' We have to really want to do a job as big as this to make it a success. But I think that the very fact that so many of the gas industry leaders of the nation are here today

which the school is built.

Nathan Klein, chairman of the board of directors of Caloric and one of the sons of the founder, stated in an address at the dedication that Caloric would continue to cooperate with the school in any way possible, particularly by providing on-the-job training for any student desiring it.

Caloric also donated a parcel of land next to the school to the adjacent Lutheran Orphanage.

proves that we have the 'will to do' this job."

Mr. Stackpole said that it would be smart for people in the gas industry who are not in the merchandising business to get back into the merchandising business. He emphasized that "when we retreated from merchandising, we did our competitors one of the greatest favors that we have ever done to forward their cause."

In closing, he said that the gas industry could get back into the merchandising business through the Mayfair program.

These utilities were represented at the meeting: Columbia Gas System, Manufacturers Heat and Light Co., Ohio Fuel Gas Co., United Fuel Gas Co., Empire Southern Gas Co., The Gas Service Co., Jacksonville Gas Corp., Laclede Gas Co., Metropolitan Utilities District of Omaha, Neb., Milwaukee Gas Light Co., Pioneer Natural Gas Co., United Gas Corp., Lone Star Gas Co., and Southern Union Gas Co.

Mrs. Linwood Findley—Mrs. America—saws a wooden barrier to open one of four Dallas Parade of Homes displays

Gas appliances in 160 parade homes



Mrs. America—Mrs. Linwood Findley of Arlington, Va.—was the key figure in ceremonies opening the September Parade of Homes in Dallas and National Home Week in Fort Worth. Mrs. Jeanne Hale of Kilgore, who went to the national Mrs. America finals at Fort Lauderdale, Fla., as "Mrs. Texas," handled similar assignments in the Parade of Homes opening in Waco and San Angelo.

Activities of the two champion homemakers were sponsored by the Lone Star Gas Co. in cooperation with Home Builders Associations of the four cities. Parades were conducted also in Abilene and Wichita Falls.

Gas appliances were installed in some 160 Parade houses in the six cities. The actual count exceeded 680 units, including built-in ranges, bathroom heaters, central heating systems, water heaters and "Sun Valley" year-round gas air conditioning systems. Numerous houses displayed Servel "Ice-Maker" refrigerators and clothes dryers.

Mrs. America was greeted in Dallas by Lone Star and Home Builders Association officials. Mayor Pro-Tem Vernon Smith presented her with a certificate designating her as an honorary citizen of Dallas. She was filmed for two shows of "Builders Showplace," a Sunday television program sponsored by Lone Star Gas Co., and opened each of the four

Dallas Parade sites by sawing a plank set up as a barrier at the entrance.

Next day she was flown from Dallas to Fort Worth by helicopter. A reception committee consisting of Home Builders Association and Lone Star Gas Co. officials presented her with a bouquet of red roses and a typical Texas-style hat.

She was honor guest at a luncheon where Mayor Tom McCann gave her the "keys to the city of Fort Worth."

Mrs. America pushed a button to officially open National Home Week in Fort Worth. The button was mounted on a wood panel held by two Home Builders Association officials. One push and the electronic brain in the panel transmitted an impulse to an overhead door a few feet away. The door swung open to admit the first visitor to the Modern Living Exposition, first of its kind ever conducted in Fort Worth. She made personal appearances in the houses equipped with gas built-in cooking equipment.

On her second day in Fort Worth, Mrs. America appeared on the Home Builders Association weekly television show.

Then she visited gas houses in Panorama of Homes sites located throughout Tarrant County.

During her three-day visit in Dallas and Fort Worth starting September 20,

she was featured on 12 radio and television programs. She was filmed by television cameras as she opened the first Dallas Parade site and upon her arrival in Fort Worth by helicopter. Newspapers carried pictures of her Parade activities and she was featured in special newspaper sections on the Parade. These sections also carried stories on the predominance of gas appliances in the houses.

Similar publicity and promotion was given Mrs. Texas in connection with her personal appearances in Waco and San Angelo.

Feature of the Fort Worth Modern Living Exposition was a \$30,000 all-gas "Giveaway House" that went to a lucky Exposition visitor. It was a gift from the Home Builders Association and featured Servel all-year gas air conditioning.

The Dallas Parade included 39 houses and the Fort Worth Panorama of Homes and Modern Living Exposition featured 70 houses. Waco home builders showed 16 houses in their Parade and displayed a "Blue Flame Home" as a feature attraction. The decision for gas in the feature home was made at a closed meeting of the Home Builders Association in May. The San Angelo Parade contained twelve houses. Parades of Homes were conducted also in Wichita Falls and Abilene in September with a total of 30 houses.



Builder A. A. Jackson and Mrs. America inspect gas built-in cooking equipment installed in the Jackson house of the Fort Worth Modern Living Exposition



Mrs. America and National Home Week Chairman Gene Payne are in \$30,000 home given to a lucky exposition visitor by Fort Worth Home Builders Association



Mrs. America pushes button which officially opens National Home Week in Fort Worth. With her are Ted Peters (l.), Modern Living Exposition chairman, and Mr. Payne

Gas conditioning

(Continued from page 10)

Carrier Corporation, show that 26¢ gas produces steam at approximately 32¢ per 1000 pounds of steam for fuel. This results in a fuel cost of approximately 58¢ per hour per 100 tons of refrigeration, or for the 870-ton load the fuel cost is approximately \$5.05 per hour.

The fuel cost, for a comparable steam turbine driven centrifugal compressor, would be \$6.12 per hour.

The average cost of electric energy at the plant is approximately 1.25¢ per kilowatt-hour, based on a total plant load of 1000 kw demand and 313,000 kilowatt-hour usage per month. Electric energy required for the boilers, pumps, cooling tower fans and other electrical accessories for the cooling system is approximately 140 kilowatts per hour and costs approximately \$1.75 per hour based on the average energy cost.

Interest and depreciation costs, based on charging off one half the cost of the boiler plant and the total cost of the absorbers and accessories over a 20-year period, equals approximately 75¢ per hour of operation, based on 2240 operating hours per season.

Cost of a maintenance mechanic for the air conditioning equipment is approximately \$2.25 per hour.

Total computed hourly operating cost, including gas and electricity, maintenance mechanic, depreciation and interest, comes to \$9.80 per hour for the 870-ton plant system, or 1.11¢ per operating hour. As shown earlier, the steam turbine drive compressor system at Sulphur Springs has a unit cost figure of 1.13¢ excluding depreciation and interest expense.

Computed operating costs for the absorption systems at our Russellville, Ky., and Tupelo, Miss., plants do not vary greatly from the costs estimated for the Kearney plant.

A cost comparison of electric and gas air conditioning was made for our Porterville plant at the time of bid opening. There is a decided difference in hourly operating costs as reflected in fuel costs, in favor of the gas equipment.

Based on all of the data available, we have become convinced that, except in those locations where conditions will permit exceptionally low electric power rates, gas air conditioning, employing absorption type equipment, is the installation of choice.

Accountant's function has grown from the technical area to include the sphere of human relations

Human relations—key to success

By JAMES F. DALY

Assistant Controller
Long Island Lighting Co.

Not too many years ago the accountant's job consisted primarily of fighting his way through a blizzard of source documents every month and emerging (sometimes to his own amazement) with the traditional accounting reports and statements. He had little time for other activities.

Although the accountant today has a more orderly existence, developments in organization, training, communications, procedure and control have given the accounting executive even greater responsibilities. These duties have been further increased as many accounting and clerical tasks which have grown historically in other departments have gravitated to the accounting department.

As a result the accounting executive now generally operates in two broad areas. The first might be called the technical area. The second is the field of human relations.

The technical area involves the many complex accounting and record keeping functions of the department and usually encompasses payroll, plant investment, stores, accounts payable, general books and records, reports to regulating bodies, taxes, accounting policies, data processing.

It is generally recognized that the degree of success the accounting executive achieves in the technical area is dependent upon how skillfully he operates in the sphere of human relations.

Splendid work is being done by the gas and electric industry in the field of

human relations. While serving as chairman of the A. G. A. Accounting Employee Relations Committee, I had the opportunity of meeting and speaking with many utility executives and learning at first hand of their views and experiences in human relations activities.

The executive's prime responsibility is directing the work of others. His own function really consists of a relation-



An accountant's success in technical area depends on his skill in field of human relations, Mr. Daly states

ship. He is constantly relating himself to others; if not directly, it is done through his supervisors. When this is not so he is not performing the work of an executive.

The attitude and morale of employees is a projection of the attitude and morale of the executive. In view of this, it is extremely important for the executive

to indicate by his attitude that he is interested in his employees as individuals as well as members of a team. If he conveys to the employees a feeling that he is genuinely interested in their jobs, the atmosphere in which they work and their opportunities for development and advancement, both the interest of the company and of the employees will be served at one time.

There is nothing more stimulating and encouraging than the knowledge that employees have become better and more useful as a result of sound guidance and thereby the department has become a more efficient operating unit.

Just as a workman requires tools, so too does the executive require implements to perform his work. The tools of the executive in dealing with his staff are not primarily tangible but rather consist of attributes of disposition which govern his conduct in such a manner that it will create certain definite reactions on the part of employees. These tools do not consist of words or acts but rather form a proper climate for his words and acts. Let us consider some of them:

Enthusiasm: The executive must have faith in the objectives of the company and the department if he is to generate enthusiasm in his employees. The employees' enthusiasm can be sincere only if the executive is sincere. Employees who fully understand these objectives and are made aware of their role as participants are more likely to perform their jobs with enthusiasm than employees who are inadequately informed as to over-all goals.

Cheerfulness: A pleasant attitude and sense of humor are appreciated by em-

ployees. These qualities impart a spirit of optimism to the organization. Cheerfulness will never impair any executives' dignity.

Generosity: The executive should be generous. He should always be ready to give credit to his employees for performing well or for making suggestions. True enough they are paid for doing their jobs but most of us like to receive praise or commendation when we perform well. It provides a satisfaction over and above our monetary compensation. It is an emotional reward which the psychologists call psychic income.

Calmness: The executive who is emotionally stable and consistent can contribute much to the smoothness with which his organization operates. When working under pressure the employees watch the executive and have a tendency to act as he does. The executive who is up in the clouds one day and in the dumps the next usually keeps his employees off balance and they are called upon to expend a considerable amount of mental effort attempting to adjust themselves to conform to the executive's emotional fluctuations. If we wish to control others we must learn to control ourselves.

Stability: The executive who constantly makes changes in policy for the sake of expediency or to avoid facing his problems creates an atmosphere of confusion. Employees admire and respect the executive who faces up to his problems and makes the necessary honest decisions. It has been said that if we don't solve our problems our problems will dissolve us.

Accessibility: A well developed organization must have good lines of communication up and down. Good lines of communication depend a great deal upon the relationship between the executive and the employees. If it is warm and friendly the employees can discuss any situation without nervousness or embarrassment. When they feel they can come to the executive occasionally to discuss a personal problem he can then be certain that he has won their complete confidence.

Practical: Employees are apt to misunderstand an executive who uses a stilted vocabulary and they will never respect an executive who talks down to them. An order or assignment, whether written or verbal, should not be obscured in semantics or technical jargon but rather should be clearly expressed in the language understandable by the person

being addressed. Moreover the executive should be sure that compliance or completion is possible and feasible before issuing an order or assignment and realize that the authority to issue an order involves the responsibility of seeing that it is carried out.

Personnel, buildings, desks, equipment and machines do not of themselves constitute an organization. They are transformed into an organization only through the qualities of the executive which cannot be purchased or furnished by the company. Each executive must acquire and develop them himself.

The executive who has an innate interest in people will have a tendency to acquire these qualities instinctively. He will constantly seek to improve communications and get to know his employees better. He will not be a creature of habit but will try to find new ways of doing things. Participation in professional societies and industry associations provides a fertile field for the executive who is interested in human relations.

Executives' authority

These qualities, set forth above, deal with the technical and human relations areas directly within the scope of the accounting executives' authority. Even if all conditions were ideal within these areas, the total efficiency and productivity of the accounting department would come to naught except for the understanding and cooperation of all the other departments of the company.

It must be remembered that no group crosses more departmental lines than does the accounting department. It depends upon every other department for the grist which feeds its mill. Accounting statements and even payrolls reflect only what is reported on the thousands of source documents which originate in the various departments.

The accounting executive must be a team player, have knowledge of the workings of all departments and must recognize the fact that each department has a major function to perform. Some of the larger departments have tremendous technical, operating and human relations problems; consequently, paper work and reports, while necessary, are only a secondary importance to them.

The accounting executive who is familiar with the problems of other departments will not be inclined to impose arbitrary or unnecessary accounting requirements which burden them with

complicated clerical tasks. Neither will he make changes in policy, accounting, forms or procedures without first reviewing them with other departments to determine their effect. He knows that changes of this nature can impose serious problems of communications and training and that the work of large numbers of personnel throughout the company might be affected.

The accounting managers and supervisors should be equipped with as many facts as possible concerning the organization and operation of the other departments as there is constant communication between the accounting department and other departments at all levels.

It is essential that this be carried on through proper channels.

The operating departments are ready to do what is required of them but in order to comply with the accounting requirements they must be kept fully informed as to the type of reports that are required, their frequency and the use to which they are put by the accounting department.

Therefore, it is the responsibility of the accounting executive to keep the other departments abreast of accounting policy and requirements. It follows that the accounting executive must be in intimate touch with the executives of other departments as their work is closely allied in many respects with the accounting function. However, in his relations with other departments he should always place the interest of the company ahead of the interest of his department. In order to do so the accounting executive must have thorough and intimate knowledge of the organization, policy, plans and over-all objectives of management. This knowledge is also essential in order to keep his employees well informed.

Errol W. Doebler, chairman of the board of our company, recently said, "Well-informed employees are an asset to any business organization, especially to a utility." When we observe our employees engaged in the performance of their day to day activities we sometimes fail to realize their combined economic value and potential to the company.

Industry devotes substantial amounts of time and money to improving its machines and equipment and in providing the necessary preventive maintenance. A machine, no matter how complex and automatic, requires personnel to operate it and to make judgments in connection

with its continued operation. In view of this, is it not equally important to provide "human preventive maintenance" through proper training and dynamic human relations practices and thereby eliminate many of the conditions which cause personnel problems to arise, develop and flourish?

We are presently moving into the era of automation and electronics. Well-informed employees, who have confidence in their company and faith in its executives, will go through the transition period with a minimum of adjustment. There is no doubt that automation will eliminate some of our existing problems

but experience up to now indicates that it will create many new ones.

In any business organization today there are many functions to be performed which require different types of persons. Rather than being a problem this is rather fortunate, for it makes it possible to match a person of certain capacities, interests and attributes with the function which requires those particular characteristics. The compatibility of the employee and his job makes for over-all harmony and efficiency within the organization and provides it with motivation.

In the final analysis the motivating

power behind any organization structure is the personnel of that structure. Machinery will not eliminate human strengths and frailties, likes and dislikes, congenialities and bad tempers. Therefore, adequate consideration for the human element of any organization will always be of prime importance to the executive. Someone once said—"A man's greatness is measured by his kindness, a man's education and intellect, by his modesty. A man's ignorance is betrayed by his suspicion and prejudices."

His real caliber is measured by the consideration and tolerance he has for others.

FP recorder

(Continued from page 19)

An additional feature is a special punch which indicates the interval during which power failed and the recorder did not operate, so that data for comparable periods of time can be easily correlated. The cost of the basic demand recorder is \$225 although there are a number of optional extras to permit greater flexibility.

The automatic translator is designed to convert the punched tape from the digital demand recorder directly to IBM

punch cards, and is designed primarily to work with the IBM 024 or 026 key punches. It is capable of converting to punched cards a 30 day record of 15 minute demand-interval punched tape in 20 minutes. Thus manual processing of demand data, with its substantial labor costs, is completely eliminated. The translator can be operated readily by unskilled personnel, and will stop automatically whenever an error (either power failure or "maximum range exceeded") is sensed; in such instances simple adjustments in various dials are utilized.

An optional feature of the translator provides for the determination of one maximum demand during the translating scan of the punched tape and the time and date when that maximum demand occurred.

With the translating speed noted above it can be seen that one translator can handle the punched tapes of many demand recorders. The translator is priced at \$4,750. Additional details regarding the equipment, which should greatly facilitate the conduct of gas load characteristics tests, are available from the Fischer and Porter Co.

Gas heats water used for mixing concrete in Kentucky

POURING CONCRETE in the "dead of winter" is just another job for Horn-Goin Construction Company, Frankfort, Kentucky. It was there that hot water for concrete aggregate mixing was provided by an automatic gas water heater to meet cold weather pouring temperature specifications of city authorities during construction of a new swimming pool.

A total of 1,800 cubic yards of "hot" concrete was poured during the months of January, February, and March for the pool

in Frankfort Municipal Recreation Park.

To produce this required warm concrete, the contractors used a Ruud multi-coil gas water heater connected to a 500-gallon storage tank to maintain a constant supply of hot water. The water, heated to a 150°F, was used in mixing aggregate to supply four truck mixers between the heater-tank area and site of the pouring; two miles away. The average monthly cost for natural gas was \$22 during this three-month period.

Both the automatic gas water heater and storage tank are housed in a corrugated steel building under the water measuring tank and the mixing machinery. This consists of a hopper in which the aggregates—crushed limestone rock, Ohio River sand, Portland cement and the hot water—are weighed and passed from the storage bin into the batcher, then into the transit mixer.

Natural gas for the water heating unit is furnished by Central Kentucky Natural Gas.

Sales rise

CONNECTICUT Light and Power Company, celebrating its 40th anniversary with a press party for more than 125 newspaper and radio editors November 7 at its general headquarters building in Berlin, Connecticut, disclosed that its annual gas sales have nearly doubled in the past 20 years. Sales were only 50,237 thousand cubic feet a year in 1917, but soared to 4,649,000 Mcf in 1937 and more than 8,715,000 Mcf this year. The company reported 6,536 gas customers in its first year of operation, 67,611 in 1937 and more than 85,500 now. The total number of customers for both electric and gas has increased from 50,000 in 1917 to more than 400,000 this year. Meanwhile, CP&L has increased its utility plant investment from \$21.5 million to \$293.4 million and added 2,500 employees to its original staff of 425.

Natural for Montreal

NATURAL GAS will be available for service during the coming winter to all municipalities on the Toronto-Montreal section of Trans-Canada Pipe Lines' transmission system, including the city of Montreal. Arrangements have been completed for a supply of gas to be borrowed from the Union Gas Company for the eastern Canada section of the pipeline's market until Alberta gas arrives. Trans-Canada will return the full amount of gas borrowed from Union beginning next fall when Alberta gas arrives. Contract conditions under which the gas is lent to Trans-Canada ensures that gas will be available to all the economically serviceable Ontario markets between Toronto and Montreal as well as provide for the conversion of the Montreal market from manufactured to natural gas this winter and spring.

Council meets

THE COUNCIL of the International Gas Union met recently, at the Haus der Berliner Kaufleute und Industrieller in Berlin. Business sessions were presided over by IGU President Mario Roselli, with the assistance of R. H. Touwaide, IGU general secretary. Delegates from 11 European nations and the U.S. were present. Among the major steps taken were the acceptance of application for membership of the Technical and Scientific Czechoslovakian Society for the Utilization of Fuels, and the setting up of a technical committee on the study of safety conditions in domestic, commercial, and industrial gas installations. Following the business sessions, delegates visited the Industrial Exhibition and International Building Exhibition then in progress, and the Berlin-Mariendorf gas works.

Metal, Hotel Shows in spotlight

Industrial and Commercial Gas Section members took part in two major events during November.

The first—the National Metal Congress and Exposition, world's largest trade show—was sponsored by the American Society for Metals. More than 75,000 delegates saw some 500 exhibits at the International Amphitheater in Chicago the week of November 4. The Combined Industrial and Commercial Gas Section exhibit occupied 240 feet of main aisle space and dominated one entire side of the arena.

The second event—the 42nd National Hotel Exposition—opened at the New York Coliseum on November 11, continuing through the week. Here again, the gas industry dominated the main floor of the Coliseum with a 4,000 square foot exhibit. There were 13 co-operating exhibitors in the A. G. A. Combined Commercial Gas Exhibit which proved to be a major attraction for the more than 50,000 registered visitors to this exposition—largest in the hotel field.

Nine exhibitors showed modern industrial gas processing equipment at the Chicago show. Exhibitors included the following:

American Gas Furnace Co., Elizabeth, N. J., who showed a controlled atmosphere, continuous retort furnace with a capacity of from 400 to 800 pounds per hour for case or clean hardening. The temperature range was 900 to 1,750 degrees F. Connected to the furnace was a display by Metalwash Machinery Corp., Elizabeth, N. J., whose washing and quenching machine took products from the American Gas furnace for further processing.

Continental Industrial Engineers, Inc., Chicago, used a lounge area to illuminate pictures of their installations.



Covering nearly 4,000 square feet, the Combined Commercial Gas Exhibit was the largest at the 1957 Hotel Show which was held in New York City's giant Coliseum



Along 240 feet of main aisle, nine cooperating manufacturers of industrial gas equipment put on a display that dominated one entire side of the 1957 Metal Show



Mahlon A. Combs (c.) receives GAMA plaque for service to gas industry from Alvin M. Stock (r.) and Frank Fleser



Mr. Combs received another award from Roy Wright, chairman, Industrial and Commercial Gas Section



GAMA's annual distinguished service award given to J. H. Eiseman (l.) by E. L. F...



The newly appointed Metals Committee held their first meeting during Metals Show Week to set plans for coming year. John C. Rasmussen is the chairman



At head table during 21st annual Industrial Gas Breakfast at Metals Show were (l. to r.) Dr. M. A. Elliott, Roy A. Wright, A. O. Scheuer

The Eclipse Fuel Engineering Co., Rockford, Ill., displayed one of the largest gas furnaces ever exhibited under the Blue Flame banner. Celebrating their Golden Anniversary, they showed a "Clean-Line" automatic heat treat unit which is a controlled atmosphere, gas-fired, radiant tube furnace for the heat treating of metals to 1,850 degrees F. This unit has an automatic loader, automatic transfer mechanism for work, water jacketed atmosphere cooling chamber, oil quench tank, oil pump and cooler, and a control panel. They also displayed their new unimix machine for a reliable, simple, adjustable source of premixed air/gas supply to combustion systems.

A live exhibit showing an automatic brazing table and a continuous bar end heater was main attraction in the space of Gas Appliance Service, Inc., Chicago.

Another live exhibit was that of Charles A. Hones, Inc., Baldwin, N. Y., who, for the first time at a metal show, had in operation their "Buzzer" type continuous furnace for heat treating up to 2,000 degrees F. firing with atmospheric burners. This furnace has a No. 6 belt conveyor system and six burners, three on each side, consuming 10,000 cubic feet of natural gas per hour for maximum temperatures. Other equipment displayed by Hones was their pot hardening furnace and a "Buzzer" melting furnace.

Attracting much attention was the large inert gas generator by The C. M. Kemp Mfg. Co., Baltimore. This generator is capable of producing 88 percent nitrogen from natural gas with the balance CO₂. They are made in an assortment of sizes up to 2,000 cubic feet per hour.

Selas Corporation of America, Dresher, Pa., was brazing a pocket lighter assembly on an automatic machine, which has a capacity of up to 1,800 pieces per hour. In another part of the display they showed their line of ceramic burners and other equipment.

The Spencer Turbine Co., Hartford, Conn., in addition to their usual display of turbine blowers used extensively for combustion purposes on industrial furnaces, had a unique pneumatic conveyor blower in operation. This conveyor blower showed how small parts could be transported by a column of air with speed and efficiency.

The traditional Industrial Gas Breakfast was attended by gas company engineers, manufacturers of industrial gas equipment and representatives of publications in the metal-working field. The Industrial Achievement Award, given

annually by the Industrial Gas Equipment Division of Gas Appliance Manufacturers Association, was presented to John H. Eiseman, physicist at the National Bureau of Standards in Washington, D. C.

Greetings from the American Society for Metals at the breakfast were given by Arnold O. Schaefer, president, Penroyd Steel and Forge Corp. Mr. Schaefer cited the service of ASM to education, the society's future plans and described its new headquarters building in Cleveland.

He was followed by the guest speaker, Dr. Martin A. Elliott, director of the Institute of Gas Technology, Chicago, who told of research and other activities at the Institute. Dr. Elliott said IGT's part in training undergraduates for careers in the gas industry through scholarships and other means has been made possible through gas industry cooperation.

At the hotel meeting, firms cooperating with the Industrial and Commercial Gas Section are as follows.

The G. S. Blodgett Co., Inc., Burlington, Vt., showed an entirely new oven, the "Speedette," designed for a small operation. Only 33 inches wide, 27½ inches deep, and 22¼ inches high, it is built of stainless steel and is completely insulated. These small ovens can be set one on the other similar to standard deck ovens. Each has two decks inside giving a 5 inch clearance, ample

for most baked goods. The oven is equipped for real high-speed, high temperature work and has separate heat sources for the top and bottom decks. The company also showed their standard deck and pizza ovens.

In the area occupied by Cecilware-Commodore Products Corp., New York, a complete line of counter cooking equipment, coffee urns and hot food transport items made up the larger part of their display. One of the newer items in the gas area was the vertical barbecue-broiler by Char-Rock Products, Indianapolis, Ind. This new vertical broiler will be made in three, six, and 18 horizontal spit models. The company says that the position of the radians in the back speeds up broiling to a considerable extent. Their other floor and counter models were also displayed.

Cleveland (Ohio) Range Co. had various models of their Steam-Chef, Steamcraft and Steamliner cooking units arranged so that visitors could see the equipment from all sides. To demonstrate the steaming capacity of one particular model, a steam jacketed kettle was connected to show how both pieces of equipment could be put to efficient use.

A feature of the Magic Chef Division, Cribben and Sexton Company, Chicago, was the new high-speed broiler that has a 100,000 Btu gas input. A deck oven was also included in the dis-

play of heavy duty ranges. Duke Mfg. Co., St. Louis, displayed a large line of warming and serving tables.

A new item which attracted considerable attention was the wall-hung kettle by B. H. Hubbert & Son, Inc., Baltimore. Other models of kettles made by this company were also on display. Continuing new items at the hotel show was a conversion unit shown by Kewanee Industrial Washer Corp., Kewanee, Ill. This piece of equipment which consists of a pump to agitate wash water in a pot sink can be attached to existing sinks thus eliminating the necessity for the purchase of entirely new equipment. Their standard pot washing sinks were also on display.

Malleable Steel Range Mfg. Corp., South Bend, Ind., had heavy duty ranges in stainless steel together with recently developed modular units and a restaurant type range in black. Martin Oven Co. Inc., Rochester, N. Y., showed the large "Variety" oven together with a deck oven, both in stainless steel.

Continuing a pattern established many years ago, Robertshaw-Fulton Controls Co., Youngwood, Pa., had a spacious lounge area where visitors could consult on thermostat and control problems. A display case contained many models of controls which were used to illustrate points under discussion. Then the A. O. Smith Corp., Mil-

(Continued on page 36)



Chatting with C. S. Stackpole (r.), principal speaker at the Commercial Gas Breakfast are Larry Hilaire (l.) and Sam Arnoff



Symbolizing the fuel age, a model of The Lark, first surface to air missile to score direct hit and destroy flying target, was in A. G. A. lounge at Hotel Show

Laclede gambles on sandstone—and wins



These buildings are Laclede Gas' storage compressor station with three compressors sending natural gas into the ground for heating additional St. Louis homes next year



This view shows the lines by which gas enters and leaves the storage area. Included are the gas cleaner, valves, recording meters, pressure regulators, and gas heater

● *Gas stored in water-bearing formation that had never before*

In one of the biggest and most successful projects of its kind, Laclede Gas Company of St. Louis is pumping billions of cubic feet of natural gas down into sandstone that never held gas before so that the company will be able to heat additional thousands of homes next winter.

Three Ingersoll-Rand gas engine-compressors are taking up to 16 million cubic feet of natural gas a day, delivered by pipeline from Louisiana, compressing it to 655 pounds per square inch, and discharging it down 1400 to 1500 foot wells into a natural underground dome to be trapped by rock and water until it is needed during the cold weather next winter. There are more than four billion cubic feet of gas down in the ground. Laclede's geologists estimate there is room for 50 billion.

Many companies have utilized former gas fields for this purpose, but Laclede was one of the first to trust its wealth to a water-bearing formation that had never held gas before. The potential for increased service to the public justified the gamble. The company was heating 100,000 St. Louis homes with economical natural gas and another 100,000 wanted service. Unfortunately, the heating load required high volume for a relatively short season. Cost of doubling the pipeline supply to meet the seasonal peak would be prohibitive and above-ground storage tanks also would be so costly as to require impossibly high rates to consumers.

The only answer was natural underground storage, but the area had no exhausted gas fields such as had been used for this purpose in other cities. Geological exploration, however, uncovered an area 18 miles north of St. Louis where a dome of porous sandstone a quarter mile down was sealed above and below by impervious layers of shale and sealed at the circumference by salt water. Shallow well drilling began in 1953 to explore for the structure indicated by the State geological survey. The shallow well program covered 25,000 acres and proved the existence of the structure sought. The first deep test well was drilled in July, 1953, and struck oil in the Trenton formation at 950 feet, another evidence of the existence of the structural anomaly. This well was con-

and before held gas means heat for thousands more St. Louis homes

tinued to 3240 feet, penetrating the entire sedimentary phase. St. Peter sandstone was found at 1450 feet, a stratum 100 feet thick with good porosity and permeability.

Additional tests were conducted to make sure the cap rock would hold the gas in. Hydrostatic tests of the core showed the cap rock impermeable. Consistent difference in pressure of water wells drilled to cap rock and to sandstone proved there was no communication between the two strata. With all signposts pointing to success, Laclede began leasing storage rights. Gas storage would in no way affect surface use of the land and the company further agreed not to use any mineral or potable water bearing strata.

Construction of injection wells and a compressor station was begun in February 1955, and the first gas was pumped down into four wells on Dec. 2 of that year. Five wells were added in 1956 and five more are being drilled in 1957, with a probable total of 20 wells contemplated. To raise gas to the required injection pressure, Laclede installed three Type SVG Ingersoll-Rand gas engine-driven compressors. Each of these units has 12 power cylinders (in V formation) of 11 $\frac{3}{4}$ -inch bore and 12-inch stroke driving four compressor cylinders, two 10-inch by 12-inch first-stage cylinders and two 5 $\frac{1}{2}$ -inch by 12-inch second-stage cylinders.

The location north of the city is ideal. Natural gas comes to St. Louis from the south through the Mississippi River Fuel Corporation's pipeline from the Monroe field in Louisiana. All that was necessary was to extend lines from the city distribution system north to the compressor station. When customer demand is below line capacity, the excess flows on to the storage area. When demand exceeds pipeline capacity, gas can be fed to the city from both north and south. No expansion of lines through the city was required to carry gas to and from storage.

Gas reaching the compressor station first passes through a scrubber, then an orifice and recording meter to the 24-inch intake manifold. An 8-inch line carries gas from the manifold through a scrubber to the first-stage cylinders of

(Continued on page 36)



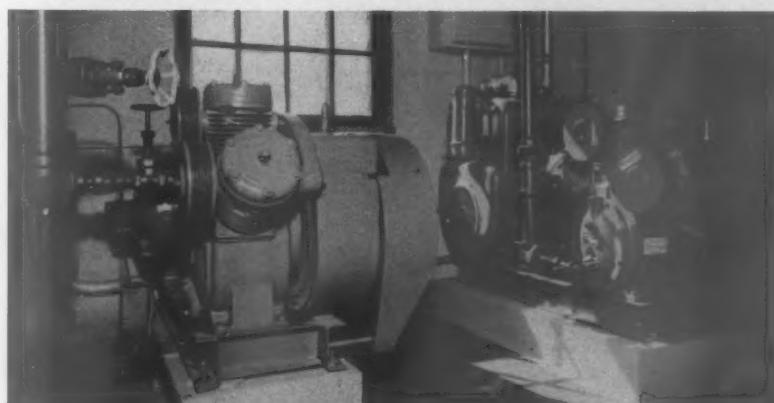
The familiar "Christmas tree" is located at each well head



This view shows the Ingersoll-Rand engine-compressor unit



Natural gas, engine cooling water and lubricating oil are cooled in these fan-cooled radiators. Fans are driven by hydraulic motors. Exhaust silencers are also in photo



Two starting air compressors are located in separate building that houses the plant office and service shop. One compressor is driven by electric motor, other by gas

● Northern Illinois Gas Co. solves problem of promoting its appliances



Appliances keep moving with kitchen on wheels

By RAY E. WINTER

Display Manager
Northern Illinois Gas Co.

A gas utility such as Northern Illinois Gas Company, whose service area stretches over 10,000 square miles of Illinois, faces a continuing problem of promoting its gas appliance story to its many customers. Although the company maintains appliance displays in 43 locations, the problem is particularly acute in reaching more than 600,000 customers in 264 communities.

A mobile unit, to bring appliance displays to outlying non-office locations, became one effective answer for our company this year.

A home-type trailer was chosen, rather than a large tractor-type moving van, principally for two reasons—better appearance and lower cost. Known as Penny Flame's traveling salesroom, it is an eye-catching pink tractor-trailer trimmed with blue and white.

The 35-foot trailer custom-built interior features a yellow and green vinyl tiled floor and has a ceiling height of seven feet four inches and is eight feet wide. Incidentally, the ceiling height is four inches higher than standard trailers which helps to eliminate the "closed in" feeling often experienced in units of



The Penny Flame trailer was exhibited at 41 locations from Aug. 17 to Nov. 8 when it was "grounded" for winter. Here, it is shown on Ottawa, Ill., streets



Here, the Penny Flame kitchen-laundry trailer is shown in location. A total of 9,300 people viewed the display of gas appliances.

appliance story over 10,000 square mile service area

this type.

The front half of the trailer houses the economy New Freedom Gas Kitchen and Laundry, which has birch cabinets with chromium trim, yellow tile walls, dull yellow formica table tops, and free-standing appliances—a matching gas dryer and washer, a nine cubic foot gas refrigerator, and a 30-inch gas range. These were placed into an L-shaped inline arrangement measuring 15 feet six inches. A 24-inch sink was installed midway between the refrigerator and range, beneath a thermopane window, enhanced by yellow curtains with red and black figures of pots and pans, and a yellow venetian blind.

The 19 foot six inch deluxe kitchen in the back half of the trailer features walnut cabinets, copper hardware and built-in appliances. The walls are done in dull white tile, flecked with small gold stars. This section has a dull white formica top plus a 32 inch corner sink with a raised flower planter beneath the two corner windows. The windows have white blinds, white curtains, and cocoabrown trim.

The appliances are: an 11 cubic foot gas refrigerator completely built-in with a walnut bezel; a built-in automatic gas oven-broiler; a four burner set-in range top, including "burner with the brain";

a built-in dishwasher with a walnut grained front; and a combination gas dryer-washer.

Other features of the trailer provide for a public address system with two outside roof-mounted speakers, and two ceiling speakers inside. There is a 1½-ton air conditioner mounted in the center of the ceiling and two vent fans at either end of the trailer.

The curb side (entrance) has three thermopane windows, which create a show window or home picture window effect (with over-all measurements of 14 feet in length and 5 feet in height). There are two 36 inch doors on this same side and two sets of portable steel stairs that adjust to fit all curb heights.

A 14 foot six inch awning over the window area is used at fairs and home shows to create an outdoor patio effect. On location, four aluminum chairs and coffee table are placed under the awning.

The tractor which tows the trailer is a conventional four-wheel drive chassis with a custom-built body housing the gas supply for appliances. A four-wheel drive was selected to minimize any outside towing service should muddy fair grounds be encountered. The gas supply is handled by six pressure tanks mounted in a rack that is rigid-piped to a manifold and pressure regulator. These tanks,

each filled with approximately 300 cubic feet of natural gas, can be checked daily by visual instruments. When the supply in one set of two tanks is depleted, the change to another set can be made in a matter of minutes. The gas from the tanks to the trailer is connected by a high pressure hose and activates the two ranges and refrigerators for demonstrations by the home service personnel on location.

Another feature of the trailer is a 16-foot upholstered bench, mounted just below the windows, to seat an audience during extended demonstrations. When the trailer is at a school, about 15 home economics students can be seated at one time. When the trailer is on exhibit for "walk-through traffic," the bench is folded down to allow a full four foot two inch aisle space.

Regardless of whether or not it is on the road or on location, the trailer has immeasurable advertising value because:

1. It's a colorful, eye-catching, moving billboard.
2. It's a reminder to all who see it that "GAS Does It Better for Less" in the kitchen and in the laundry.

The trailer was placed in storage the first week in November because of the forthcoming cold weather and icy condition of roads during the winter months.



In location at the DeKalb County Fair in Sandwich, Ill., appliances in action. The mobile unit was in 264 towns



The mobile unit's deluxe kitchen features built-in appliances in a setting of walnut cabinets and copper hardware. The walls are in dull-white tile flecked with stars

Metal, hotel shows

(Continued from page 31)

waukee, Wisc., featured the Burkay commercial water heater and the method of securing necessary two-temperature water for satisfactory dishwashing and sanitizing. Garland Division of Welbilt Corp., Detroit, had heavy duty equipment in both stainless steel and vitreous black enamel, modular units and restaurant type ranges in their display.

A major attraction in the A. G. A. lounge was a model of "The Lark," the first surface to air missile to score a direct hit and destroy a flying target using semi-active radar. The missile symbolized the fact that this was the fuel age and that gas fuel has jet speed for cooking, air conditioning, water heating and incineration.

There were other manufacturers of volume cooking equipment scattered throughout the show who added to the sum total of firms utilizing gas fuel in their appliances.

Another affair which is now a tradition of Hotel Show Week, was the Commercial Gas Breakfast, with more

than 100 guests assembled in the Hotel St. Moritz. Leaders in the hotel and restaurant field were present as were executives of the hotel and restaurant associations, commercial gas men, manufacturers of cooking equipment, educators and representatives of publications.

Because of the retirement of Mahlon A. Combs, for 12 years secretary of the Industrial and Commercial Gas Section, the Awards Committee of the Gas Appliance Manufacturers Association presented him with a citation which was read by Alvin M. Stock, committee chairman. A gift of appreciation, a suitably engraved silver tray, also was presented from the 1957-1958 Managing Committees of the Section.

C. S. Stackpole, A. G. A. managing director, in his breakfast address paid tribute to the members of the trade press and the contribution they had made to mass feeding through their counsel and guidance. He told about the uses of gas behind-the-scenes, in food processing, manufacture of fertilizer for crops used to feed beef cattle, in making the ranges, broilers and ovens, making and finishing the china and glass

which were used to serve food and many other applications.

On research and technological advancements he said, "Our members are investing millions of dollars in the search for new products as well as for new and better ways to utilize gas. Also from research have come more rugged and highly accurate thermostats. Another new development brought to us through research is a line of high input burners with roughly twice the heat input of the conventional types used in the past."

Mr. Stackpole said that the A. G. A. Laboratories have developed a prototype oven called the polythermic oven which may result in a change in our baking and roasting procedures.

He concluded: "It has been predicted that ten years from now more than half the cooking appliances we know and use today will be woefully obsolete in comparison to the new equipment that will be available. And so the gas industry must be on the march to offer new and better products as well as new and better service, to help in the prosperity of the volume feeding industry."

Laclede gambles

(Continued from page 33)

each compressor. Then the gas is cooled in a fan-cooled radiator, passed through another scrubber and fed to the second-stage compressor cylinders. After another pass through the cooler, the gas flows through a 6-inch line to the 20-inch discharge manifold and then through a series of lines to the injection wells in the field. The engine-compressors, scrubbers, manifolds and coolers are part of a J. B. Beard Co. package compressor plant.

Use of electric motors to drive auxiliary equipment has been eliminated wherever possible. An I-R centrifugal pump, chain-driven off each engine, circulates cooling water through engine jackets and the air-cooled radiator. Another engine-driven pump sends lubricating oil through the engine-compressors, both clay and waste-packed filters, and through the cooler. The radiator fans are driven by hydraulic motors powered by pumps V-belted to sheaves on the end of each engine crankshaft. Jacket water and lube temperatures are controlled automatically by thermostatic valves.

Fuel gas is taken from the incom-

ing line after the first scrubber and is passed through a separate displacement meter to measure fuel consumption for the plant. Starting air is provided by a pair of I-R compressors.

At each well head there is a Christmas tree with hand operated valves and an orifice meter run and recording meter. There is a cross-over line at the manifold so that gas can be metered on either injection or withdrawal.

Average suction pressure to the compressors is 50 to 125 psig. The first million cubic feet were injected at 670 pounds, just 100 pounds above the original field pressure. This differential is considered conservative but it is the goal of Laclede's engineers to reduce the differential and lessen injection pressure as gas volume increases. Currently, gas is injected at 655 psig. Injection is continuous as long as gas is available. The only interruption comes during cold weather when home heating demand equals or exceeds pipeline supply. Maximum injection rate is 16 million a day, the capacity of the compressor station. Actual injection volume is regulated by discharge pressure which operators keep at the prescribed level. With more wells in service, the field is expected to accept a greater volume of gas at lower pres-

sure. Additional compressor capacity may be required at a later date.

The 1956-57 winter was mild and by January 1957 the company had two billion cubic feet in storage. The first commercial withdrawal was made successfully in November and the first sustained withdrawal (80 million in six days) was made in January. Total withdrawal for the season was a modest 150 million but it definitely proved the success of the project. Gas withdrawn from storage is reduced to 150 pounds pressure and is passed through a gas-fired heater to maintain a discharge temperature of 70 degrees.

As of August 23, Laclede had 3,866 million in storage with some 100 days ahead to build the reserve. The company expects to withdraw a maximum of 100 million a day during the 1957-58 winter with a possible total withdrawal of a billion for the season. This will increase substantially as additional householders are permitted to install gas heating equipment. For Laclede, successful development of the underground storage project means important expansion of sales potential. For St. Louis customers, those Ingersoll-Rand compressors this summer are storing up next winter's clean, convenient, economical gas heat.

Industry news

Seaton moves to open Alaska gas, oil field

SECRETARY of the Interior Fred A. Seaton has announced the first step in the creation of oil and gas production in Alaskan territory north of the Arctic Circle, according to the *Journal of Commerce*, daily financial newspaper.

He said that about April 1 some 16,000

acres of northeast Alaska will be open for competitive leasing and another 4 million acres will be available for leasing on a first-come, first-served basis. By Sept. 1, 1958, he said, 16 million acres more will be up for lease on the first-come basis.

The department's petroleum experts feel that the action will establish a natural gas industry in Alaska in the near future, and that the area has an even better oil potential.

Specifically, Mr. Seaton gave 30-day notice that he will revoke a 14-year-old public land order (No. 82) which reserved 48.8 million acres of northern Alaska for government use only, including Naval Petroleum Reserve No. 4 of 23 million acres. The proposal provides:

Reserve No. 4 will remain intact behind a buffer area two miles around it.

About 20 million acres will be released for leasing to oil and gas and other mineral interests.

Some five million acres will be joined to another four million adjacent acres to form the largest wildlife preserve under U. S. control.

The chief source of gas is the Gubick field, about one-third in and two-thirds out of the

Naval reserve. Approximately 16,000 acres of the field will be leased to the highest bidder about April 1. By about the same date, four million acres flanking the Gubick structure will be opened for a 60-day period of simultaneous filing. Where overlapping bids are made, the award will go to a drawing.

Leading periods on the 16 million acres remaining will be scheduled as maps are prepared and published, Secretary Seaton said. He estimated that it would be Sept. 1 before all maps are completed.

None of the land in the wildlife range will be open to the type of land entry which leads to take-over of the title by the first claimant. Instead, Mr. Seaton said, the department will issue mining permits on oil, gas, potassium, sodium, phosphate and oil shale, under proposed new legislation.

"If Congress does not enact legislation to permit mining under the permit system," he declared, "we will have to reconsider the opening of this area to mining activities."

If Congress does approve the permit system, he said, the department will issue the permits under the new wildlife regulations it proposed recently.

List of Mrs. America contest co-sponsors nears completion

TO DATE 11 groups plus the American Gas Association have signed contracts to participate in the next Mrs. America Contest.

Newest co-sponsor on the list is the Toni Company, manufacturer of home permanents and other hair preparations. Toni will stage "good grooming" events as part of the local, state, and national finals. Martin Sandler, vice-president at Toni, made the following statement in connection with Toni's participa-

tion in the contest:

"The search for Mrs. America is not a beauty contest, but through the years the judges have always awarded points for good grooming, personal appearance, and attractiveness. We will now officially sponsor and emphasize this aspect. Any married woman and outstanding homemaker takes pride in her appearance. Good grooming will become an important consideration in selecting the

new Mrs. America."

Other groups which have already signed contracts to participate are: the gas range division of GAMA, Robertshaw-Fulton Controls, West Bend Aluminum, Parents' magazine, Gorham Silver, Singer Sewing Machine, the Savings Bond division of the U. S. Treasury Department, Wilson meat packers, the City of Fort Lauderdale, and the Fort Lauderdale Hotel Association.

New film analyzes industry employee fatality record

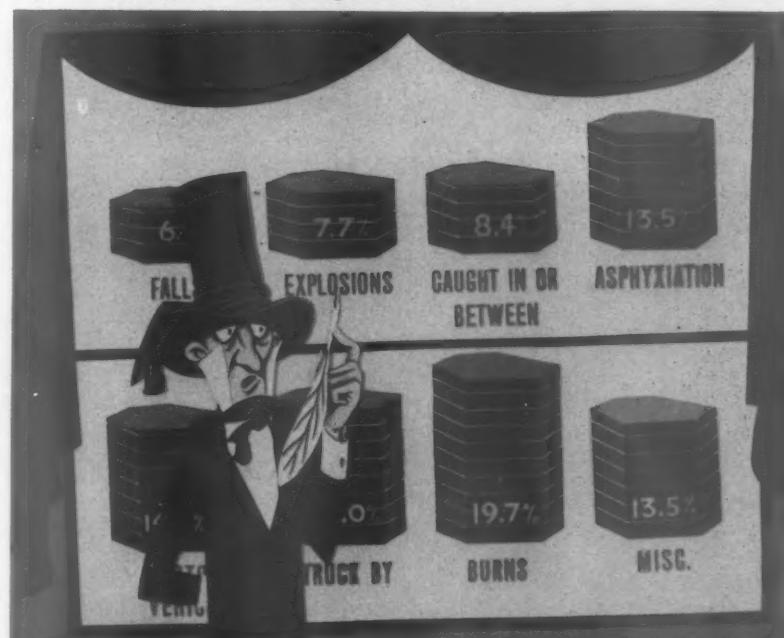
FACTS DERIVED from a ten-year analysis and summary of employee fatalities in the gas industry are presented in the new American Gas Association film, "Seven Doorways to Death." The film will influence the day-to-day attitudes of gas company employees in the area of job safety practices. It is a 35 mm. color sound slide film, which runs for 18 minutes. Sponsor is the Accident Prevention Committee.

Main character in the film is G. Reaper, Esq., unmistakably the figure of Death—but a man who hates his job. G. Reaper, Esq., is assisted in telling the story of the seven most common types of fatal gas industry accidents by the use of mood music and color drawings. Minor film characters are eye-witnesses, safety engineers, insurance claim agents, and the widow of an employee killed in a fall from a poorly placed ladder.

Charts are also effectively used to pinpoint and summarize the ten-year employee fatal accident experience in the industry.

The special effects help to make the story more vivid and its data more acceptable to gas industry employees.

The film is available on loan from the A. G. A. Library. Requests should be made as far as possible in advance of the date of showing. It is recommended that the film be purchased if repeated showings are anticipated. Purchase price is \$30.



The gent in black is a man who's unhappy with his job. He's G. Reaper, Esq., discussing employee fatalities in the film "Seven Doorways to Death" sponsored by the Accident Prevention Committee.

A.G.A. announces new publications during November 1957

The following publications are available from A. G. A. Headquarters. Those listed under "Laboratories" are available from both Headquarters and Laboratories.

PAR

- PAR Briefs. Free of charge.

LABORATORIES

- Addenda to American Standard Approval Requirements for Central Heating Gas Appliances, Z21.13.1a-1957, Vol. I, Steam and Hot Water Boilers. Effective Jan. 1, 1958; 40 cents a copy.
- Addenda to American Standard Approval Requirements for Central Heating Gas Appliances, Z21.13.2a-1957, Vol. II, Gravity and Forced Air Type Central Furnaces. Effective Jan. 1, 1958; 50 cents a copy.
- Addenda to American Standard Approval Requirements for Central Heating Gas Appliances, Z21.13.3a-1957, Vol. III, Gravity and Fan Type Floor Furnaces. Effective Jan. 1, 1958; 40 cents a copy.
- Addenda to American Standard Approval Requirements for Central Heating Gas Appliances, Z21.13.4b-1957, Vol. IV, Gravity and Fan Type Vented Recessed Heaters. Effective Jan. 1, 1958; 40 cents a copy.
- Addenda to American Standard Approval Requirements for Domestic Gas Clothes Dryers, Z21.5a-1957. Effective Jan. 1, 1958; 15 cents a copy.
- Addenda to American Standard Approval Requirements for Gas Counter Appliances, Z21.31a-1957. Effective Jan. 1, 1958; 40 cents a copy.

cents a copy.

- Addenda to American Standard Approval Requirements for Hotel and Restaurant Deep Fat Fryers, Z21.27b-1957. Effective Jan. 1, 1958; 15 cents a copy.
- Addenda to American Standard Approval Requirements for Gas-Fired Duct Furnaces, Z21.34b-1957. Effective Jan. 1, 1958; 40 cents a copy.
- Addenda to American Standard Approval Requirements for Portable Gas Baking and Roasting Ovens, Z21.28a-1957. Effective Jan. 1, 1958; 40 cents a copy.
- Addenda to American Standard Approval Requirements for Domestic Gas Ranges, Z21.1.1a-1957, Vol. I, Free Standing Units. Effective Jan. 1, 1958; 50 cents a copy.
- Addenda to American Standard Approval Requirements for Domestic Gas Ranges, Z21.1.2a-1957, Vol. II, Built-In Domestic Cooking Units. Effective Jan. 1, 1958; 50 cents a copy.
- Addenda to American Standard Approval Requirements for Hotel and Restaurant Ranges and Unit Broilers, Z21.3a-1957. Effective Jan. 1, 1958; 40 cents a copy.
- Addenda to American Standard Approval Requirements for Gas-Fired Room Heaters, Z21.11a-1957. Effective Jan. 1, 1958; 40 cents a copy.
- American Standard Approval Requirements for Gas Unit Heaters, Z21.16-1957. Effective Jan. 1, 1958; \$2 a copy.
- Addenda to American Standard Approval Requirements for Gas Water Heaters, Z21.10.1a-1957, Vol. I, Gas Water Heaters. Effective Jan. 1, 1958; 50 cents a copy.
- Addenda to American Standard Approval Requirements for Gas Water Heaters, Z21.10.2a-1957, Vol. II, Side-Arm Type Water Heaters. Effective Jan. 1, 1958; 15 cents a copy.
- American Standard Listing Requirements for Gas Conversion Burners for Domestic Ranges, Z21.39-1957. Effective Jan. 1, 1958; \$2 a copy.
- American Standard Requirements for Installation of Gas Conversion Burners in Domestic Ranges, Z21.38-1957. Available at 25 cents a copy.

RESEARCH

- IGT Bulletin 14, The Absorption Cooling Process. By R. T. Ellington, G. Kunst, R. E. Pick, and J. F. Reed. Copies are \$3 each.
- Residential Gas and Electric Heat Pumps. By Arthur D. Little, Inc. Copies are \$3 each.
- Gas Storage at the Point of Use. By Stone and Webster Engineering Corporation. Copies are \$3 each.

STATISTICAL

- Quarterly Report of Gas Industry Operations, Third Quarter 1957. Free of charge.
- Monthly Bulletin of Utility Gas Sales, October 1957. Free of charge.

RG&E history dramatized in variety show honoring Beebee

AN ORIGINAL musical variety show was presented before a full house of 3500

Rochester Gas & Electric Corporation employees and their families on the evening be-

fore the retirement of Alexander M. Beebe from active management in the company.

"RG&E Family Album," with a cast of 125 employees, portrayed in amusing fashion the development of the company from 1848 to the present. Alexander Beebe, an ambitious college boy from Cornell, was shown first going to work for the company in 1913 as an electric underground helper. The RG&E combined men's and women's choruses had active parts in the production, presenting some of the song hits from 1848 through the Gay Nineties, the flapper and Charleston era, and up to the present time.

After the show, Mr. Beebe presented Raymond Ball, who retired as chairman of the Executive Committee—a post which Mr. Beebe now takes on—with an antique gas street lamp to be placed in his garden. He then introduced the new management team.

One of the surprises of the evening was the announcement of the dedication of the company's newest electric generating unit, now under construction, as the Alexander M. Beebe station. A high-fidelity set was then presented to Mr. Beebe by the employees of the company. After the presentation ceremonies, a reception was held for Mr. and Mrs. Beebe.



This typical picnic scene at the "end of the line" is from "RG&E Family Album," a musical presented at the Eastman Theater in Rochester by and for RG&E employees, in honor of Alexander M. Beebe.

Workshops find PR work gaining management recognition



Program Committee men studying arrangements at Great Lakes PR Workshop are (l. to r.): N. D. Travis, Michigan Consolidated; C. D. Pendergrast, Northern Illinois; R. H. Willis, Lake Shore; D. H. Mowat, Peoples Gas; R. H. Lewis, Natural Gas Pipeline; J. F. Purcell, Northern Indiana Public Service. Also on the committee is D. J. McGowan of Consumers Power



Officers of the A. G. A.-Midwest Gas Association PR Workshop, meeting in Minneapolis, Minnesota, are (l. to r.): Robert F. Culrow, Minneapolis Gas Company, chairman; Robert Naylor, Montana-Dakota Utilities Company, vice-chairman; Ed Wendel, Iowa Public Service Company, chairman-elect; and Dick Sievers, Central Electric and Gas Company, vice-chairman-elect

a PAR activity

GAS INDUSTRY top management is giving greater recognition to public relations work than ever before, 90 delegates to A. G. A. PR workshops in Detroit and Minneapolis learned recently.

Gerald T. Mullin, president, Minneapolis Gas Co., told Minneapolis delegates to the A. G. A.-Midwest Gas Association workshop that techniques learned at these regional "idea forums" will help the gas industry to present the truth to the public at reasonable cost.

The Detroit workshop was co-sponsored by A. G. A. and the Michigan Gas Association. Henry Tuttle, president of the Michigan Consolidated Gas Co., singled out public relations as one of the most important functions of a public utility.

Chairman R. F. Culrow, assistant vice-president, Minneapolis Gas Co., presided at the Minneapolis meeting. Robert Naylor, PR director, Montana-Dakota Utilities Co., was vice-chairman. Ed Wendel, special representative, Iowa Public Service Co., was elected 1958 chairman, and Dick Sievers, director of advertising and publicity, Central

Electric and Gas, was elected vice-chairman.

Daniel H. Mowat, manager of press relations, The Peoples Gas Light & Coke Co., headed the Great Lakes PR forum in Detroit. Robert H. Willis, vice-president, The Lake Shore Gas Co., was elected 1958 chairman, and Andrew W. Galvin, assistant to president, Milwaukee Gas Light Co., was elected vice-chairman.

The workshops are part of a national series co-sponsored by the PAR Public Information Program of A. G. A. in cooperation with local and regional gas organizations throughout the country.

Lake Shore Gas and affiliate become part of East Ohio Gas system

THE Lake Shore Gas Company, serving 15,000 customers in the northeastern Ohio area from Painesville to the Pennsylvania line, joined The East Ohio Gas Company Nov. 1 to become a part of the largest natural gas distributing organization in the state. East Ohio is part of the Consolidated Natural Gas Co.

With the addition of Lake Shore's customers in Ashtabula, Geneva, Conneaut, Jefferson and six smaller communities, East Ohio now serves 750,000 meters in about 150 northeastern Ohio municipalities.

ties. Its service area reaches from the western suburb of Cleveland to the Pennsylvania line and south from Lake Erie to Youngstown, Uhrichsville, Dennison and Wooster.

At the same time the Lake Shore Gas Company was becoming a part of the East Ohio system, its affiliate, the Lake Shore Pipe Line Company, became the sixth company in the Consolidated system. As such, it will retain its name and identity as a separate organization.

In addition to East Ohio and the Lake

Shore Pipe Line Company, the Consolidated system is composed of the Hope Natural Gas Co. of West Virginia; The Peoples Natural Gas Company, Pennsylvania; New York State Natural Gas Corporation, New York; and the River Gas Company of southern Ohio.

There was little indication of any difference in personnel. East Ohio President Robert W. Ramsdell earlier announced that all Lake Shore employees would be offered employment. He reported that the vast majority of employees had accepted.

Midwest Industrial Gas Council holds meeting

THE Midwest Industrial Gas Council held its annual fall meeting in Chicago. J. H. Mikula of Milwaukee Gas Light Company, chairman, opened the meeting.

The problems of brazing, sintering, and heat treating of stainless steel in a protective atmosphere were discussed by A. H. Koch of Surface Combustion Corporation. He pointed out some of the problems inherent in these processes which have restricted the size of furnace it has been possible to build. However, new materials now becoming or soon to become available have

made it possible to build larger furnaces.

A panel consisting of moderator Grover C. Lewis, Northern Illinois Gas Company, Lee Humphrys, Minneapolis Gas Company, R. A. Himmelmann, The Peoples Gas Light & Coke Company, and E. B. Boyd, Northern Illinois Gas Company, discussed "Air Conditioning—Its Problems—What My Company Is Doing About It—And Results Obtained." After reporting on installations using gas in their territories, the panel emphasized the need for enthusiasm in telling people about gas air conditioning.

Engineering building

PLANS for a new \$10 million United Engineering Center to be erected on United Nations Plaza in New York City were announced last month. Occupancy is set for 1960. The new building will serve as the headquarters of 16 National Engineering Societies with a total membership of about one-quarter of a million engineers. It will replace the present Engineering Societies Building a few blocks away which is now inadequate in view of the tremendous growth of technology since the building was first occupied 50 years ago.

Set incinerator promotion plans



The Michigan cabin of Calcinator's J. W. Hebert was the site of a recent GAMA incinerator division meeting, where plans were made for the 1958 promotion of gas incinerators. Shown are (l. to r.): front—Warren Griffis of Waste King, James E. Baker of Locke Stove, Don Winegardner of Majestic, Harold Massey of GAMA, and J. W. Hebert; rear—W. R. Hebert of Calcinator, Harry Schaden of Carl Byoir, Robert Dollar of Majestic, Philip W. Hunt of Caloric, and E. O. Olsen of Bowser.

WUA holds annual operating and sales convention at Milwaukee

THE Wisconsin Utilities Association held its operating and sales convention recently at the Schroeder Hotel in Milwaukee. Almost 700 delegates attended.

The association, which is composed of five sections—gas and electric operating, gas and electric sales, and accounting—elected the

following officers for its gas sections: Gas operating—chairman, T. J. Lambeck, Wisconsin Public Service Corporation; vice-chairman, H. F. Kolb, Wisconsin Natural Gas Company. Gas sales—chairman, Owen R. Wagner, Milwaukee Gas Light Company; vice-chairman, M. R. Norton, Wisconsin

SGA round-table

J. T. MCKAY of New Orleans Public Service Inc. served as the sponsor for the recent Southern Gas Association Western area customer accounting round-table conference. The meeting was held Oct. 18 at the Captain Shreve Hotel in Shreveport, Louisiana. Thirty-two delegates from 15 companies participated in the discussions. The agenda included seven principal topics of discussion: application for gas service; service orders and charges; meter reading; customer billings; customer bookkeeping; customer deposits; customer collections. Three miscellaneous items were considered: financing customer purchases of gas appliances; accounting for meters; and auditing work of outside personnel.

Officers elected

CHARLES E. KOHLHEPP was elected president of the New Jersey Utilities Association Nov. 7 at the 42nd annual meeting of the association, in the Seaview Country Club in Asbury Park, New Jersey. Mr. Kohlhepp is president of the Jersey Central Power and Light Company and of the New Jersey Power and Light Company. Dale B. Otto, president of the New Jersey Natural Gas Company, was elected vice-president of the association. Hart T. Sweeney was re-elected treasurer and Leonard Sloan was elected secretary.

Highlights of cases before Federal Power Commission

Bureau of Statistics, American Gas Association

Certificate cases

● Atlantic Seaboard Corporation received authorization from the FPC to replace three steam driven compressor units with two gas driven units at its Boldman station in Floyd County, Kentucky, at an estimated cost of \$1.6 million.

● El Paso Natural Gas Company was granted temporary authority by the FPC to construct and operate natural gas facilities in Howard and Borden Counties, Texas, at an approximate cost of \$922,000. These facilities include about 18 miles of loop pipeline, an additional 810 compressor horsepower and additional dehydration capacity, with purchase meter facilities, to be used in securing larger quantities of residue gas.

● Equitable Gas Company has been authorized by the FPC to develop the Rhodes natural gas storage pool in Lewis County, West Virginia, at an estimated cost of \$2.1 million. Authorization includes nearly 12 miles of storage pipeline, drilling of 40 wells, and construction of a dehydration plant. The company presently operates 13

storage pools in Pennsylvania and West Virginia with a combined storage capacity of 32.3 billion cubic feet of gas.

● Gulf Interstate Gas Company has been granted authority by the FPC to construct and operate natural gas facilities including the addition of 69,000 horsepower in 10 existing main line compressor stations located in Kentucky, Tennessee, Mississippi and Louisiana, and about 10 miles of gathering pipeline. These facilities, temporarily authorized last April, included a 200 horsepower unit at East Mud Lake Field. The company has been temporarily authorized to increase the capacity of this station to 350 compressor horsepower. Revised cost of facilities is now estimated at \$25.4 million as compared with previous estimate of \$24.5 million, and will boost designed daily delivery capacity to 375 million cubic feet daily. In another FPC action, company received temporary authority to construct and operate 12.8 miles of loop line in Louisiana at an estimated cost of \$730,000.

● Home Gas Company has been au-

thorized by the FPC to construct and operate 14 miles of storage field lines and appurtenant facilities necessary to the activation and operation of an extension of its Dundee storage field located in Schuyler, Steuben, and Yates Counties, New York. The company will also construct about 21 miles of transmission line from the Dundee compressor station to a connection with its east-west transmission line in Steuben County. Present peak deliverability from the Dundee field is 32.8 million cubic feet. Future peak daily requirements range from 39.8 million cubic feet in 1958 to 51.2 million cubic feet in 1962.

● Ohio Fuel Gas Company was authorized by the FPC to construct and operate about 22 miles of pipeline in Ohio at an estimated cost of \$1.2 million, to serve the increased requirements of Dayton, Lima, and eastern Ohio market areas. Included in the authorization is permission to abandon nearly 127 miles of smaller diameter pipeline no longer suitable for safe and economical operation.

● Permian Basin Pipeline Company is

ceived from the FPC temporary authority to construct and operate \$787,000 of natural gas facilities to be used to transport residue gas from two gasoline plants. The project includes 27 miles of pipeline and measuring facilities in Crane and Pecos Counties, Texas.

● Tennessee Gas Transmission Company has been authorized by the FPC to construct, but not operate, a total of 897 miles of natural gas pipeline and 66,990 horsepower in compressor capacity—at an overall cost of \$129.6 million—in Louisiana, Mississippi, Tennessee, Kentucky, West Virginia, Pennsylvania and New York. The authorized facilities will increase delivery capacity 287.5 million cubic feet daily. As a condition of authorization, the company was given time until Dec. 2, 1957 to submit proof that additional capacity will be used solely for benefit of present customers and in no way related to proposed service to Midwestern Gas Transmission Company. These facilities are part of an over-all project of the company on which proceedings have not been completed, and this application is one of 20 by nine pipeline companies on which consolidated hearings are still in progress.

● Texas Eastern Transmission Corporation has authorization from the FPC to construct and operate approximately 106 miles of loop line and supply laterals and to add 43,610 compressor horsepower in new and existing stations at an over-all cost of \$24.6 million. The subsidiary, Texas Eastern Penn-Jersey Transmission Corporation, was authorized to add 24,000 compressor horsepower to existing stations at an estimated cost of \$4.4 million. Algonquin Gas Transmission Company, an affiliate, was authorized to sell 6.3 million cubic feet of winter peaking gas daily, purchased from Texas Eastern Transmission, to nine existing customers. The additional natural gas facilities to be installed will raise the Texas Eastern system sales capacity to 1.9 billion cubic feet.

● Transcontinental Gas Pipe Line Corporation has received temporary authorization from the FPC to operate natural gas facilities in Texas, Louisiana, Mississippi, Alabama, Georgia, South Carolina, North Carolina, Virginia and Pennsylvania at an estimated cost of \$53.7 million. These facilities include 366 miles of main and purchase lateral pipeline and 55,140 horsepower in new and existing compressor stations for increased service to 17 present customers and service to 7 new customers. The company is temporarily authorized to render all proposed service except that for Virginia Electric and Power, Central Virginia Gas, Eastern Shore Natural Gas, and certain winter peaking service.

Rate cases

● Colorado Interstate Gas Company's proposed \$2,553,000 or 3.4 per cent annual natural gas rate increase has been sus-

Prepare pipeline network analyzer for action



Technicians prepare for action the McIlroy pipeline network analyzer in new Columbia Gas System Service Corporation building. Robert Arrup (l.) sets up a distribution problem, as Pearl Sharpen gets ready to record data. Basic load data collected by the company's IBM 650 data processing machine are used by the McIlroy computer in solving complex pipeline distribution problems

pended by the FPC pending hearing and decision. The proposed increase would affect 13 wholesale customers in Colorado, New Mexico, and Wyoming, and is designed to reimburse the company for proposed increased cost of purchased gas from supplier Pacific Northwest Pipeline Corporation. The increase may become effective Feb. 5, 1958, subject to refund, if proceedings have not been concluded.

● Colorado-Wyoming Gas Company's application for rate relief, based on the Colorado Interstate Gas filing, has also been suspended by the FPC. The increase, amounting to \$340,000 or 5.5 per cent annually, would affect four wholesale customers in Wyoming and Colorado and will become effective Feb. 5, 1958, subject to possible refund upon final determination of the case.

● South Georgia Natural Gas Company's application for a \$305,000, or 26.2 per cent annual wholesale natural gas rate increase affecting 15 customers in Florida and Georgia has been suspended by the FPC pending hearing and decision. Basis for increase was anticipated increase sought by supplier, Southern Natural Gas, since suspended by the FPC, and the need for a 6.75 per cent rate of return.

In other FPC actions, Michigan Wisconsin Pipe Line Company is permitted to increase natural gas deliveries to 15 existing wholesale customers, and 7 others the company has been authorized to serve. An additional 3 billion cubic feet of gas annually will be utilized by wholesale customers to add 18,751 new space heating consumers in Michigan, Missouri, Wiscon-

sin, Iowa, and Illinois.

An FPC presiding examiner filed a decision, subject to review by the Commission, denying 8 applications seeking natural gas service from Panhandle Eastern Pipe Line Company and Trunkline Gas Company. Panhandle Eastern Pipe Line was ordered to establish additional connections with two present customers, Ohio Gas Company and Central Illinois Public Service Company, neither of which had sought increased deliveries. The presiding examiner found the combined system capacity is 1,246 million cubic feet while authorized contract demands require 1,260 million cubic feet.

SUMMARY OF INDEPENDENT GAS PRODUCER RATE FILINGS—SEPT. 1957

	Annual Number	Amount
Tax rate increases allowed without suspension	11	\$ 5,695
Other rate increases allowed without suspension	70	1,098,893
Rate increases suspended	13	231,644
Total rate increases	94	1,336,232
Tax rate decreases allowed without suspension	—	—
Other rate decreases allowed without suspension	—	—
Total rate decreases	—	—
Total rate filings (all types)	356	—
Total rate filings acted on from June 7, 1954 to Sept. 30, 1957	23,931	—
Rate increases disposed of after suspension (during Sept.)	9	1,851,321
Amount allowed	—	—
Amount disallowed	9	1,851,321
Amount withdrawn	—	—
Rate increases suspended and pending as of Oct. 1, 1957	532	\$30,781,348

Complete a million accident-free hours



The West End plant of Public Service Electric and Gas Company of Newark, New Jersey, earned the A. G. A. Safety Merit Award by completing 1,002,846 consecutive hours without a disabling injury.

Washington Natural completes three major construction projects

COMPLETION of three major construction projects by Washington Natural Gas Company has given the Puget Sound region a natural gas distribution system completely integrated from Marysville to Olympia.

Natural gas was supplied to customers in Marysville last month for the first time, after extension of a supply line from Everett, and

a brand new distribution system inside the city.

Olympia began taking natural gas from its own pipeline city gate station recently, through a supply and distribution extension which will give the city an ample supply of the fuel. Olympia formerly was served through a limited-capacity line from Tacoma.

Teachers visit utility

TWENTY-EIGHT public and parochial school teachers from the Seattle area were given a close-up view of the gas industry recently as guests of Washington Natural Gas Company. The teachers were addressed by company officials and conducted on a tour of facilities in a day-long program as a part of Business-Education Day, which was sponsored by the Seattle Chamber of Commerce and the public school system. Presentations included: "The Present and Projected Impact of Natural Gas Upon the Economy of the Pacific Northwest," by J. Wilson Gaw, vice-president of public relations; "Gas Characteristics and Utilization," by Avery Willis, safety director and S. W. Nelson, assistant customer service supervisor; "The Sales Story," by Norbert O. Fratt, vice-president, sales; "The Burner with a Brain," by June Holladay, home service director; and "Washington Natural Gas Company, an Investor-Owned Public Service," by B. T. Poor, executive vice-president.

OBITUARY

W. C. Coleman

chairman of the board of directors, and founder in 1900 of The Coleman Company, Inc., died Nov. 2. He was 87. Mr. Coleman was best known for the gasoline lamps, lanterns and portable stoves which carried his name to the far corners of the world.

Mr. Coleman relinquished the presidency of the company in 1951 and was succeeded by his eldest son, Sheldon Coleman. As chairman of the board of directors, W. C. Coleman retained a lively interest in all phases of the business. He kept regular office hours until the day before his death.

A former city commissioner and mayor of Wichita, he was frequently called "Wichita's first citizen." He was actively identified with many civic and welfare organizations.

He pioneered many advances in the field of industrial relations, and in 1943 he was acclaimed by the National Association of Manufacturers as a "Modern Pioneer of America."

He is survived by his wife Fannie Sheldon Coleman, two sons—both of whom were associated with him in the management of the company, six grandchildren, and one great grandchild.

E. R. Keller

manager of the publicity department of Cincinnati Gas and Electric Company, died recently following a heart attack. He was 54 years old. Mr. Keller, who rose from advertising copy writer to head of the publicity department, had served the company one month less than 30 years.

He leaves his widow, Margaret Beck Keller, a former employee in the same department; two sons and a daughter; and his mother.

Roland R. Paulin

vice-president and manager of operations of Michigan Consolidated Gas Company, died October 26 at the age of 55.

Mr. Paulin graduated from Purdue University in 1926 as a chemical engineer. He joined the gas company that year as a cadet engineer and during the following 10 years served in the manufacturing department, meter shop and service shop. He became assistant to the merchandise sales manager in 1936, house heating engineer in 1938, supervisor of the industrial department in 1939, assistant to the superintendent of the street department in 1943 and commercial office manager in 1944.

Mr. Paulin was named assistant manager of operations in 1949 and assistant to the executive vice-president in 1950. He was elected a vice-president that same year and was named assistant engineer. Mr. Paulin was named vice-president and engineer in February 1952,

and vice president and manager of operations in September 1952.

In this capacity, Mr. Paulin had been in direct charge of expanding the company's distribution facilities to meet the greatly increased demands for natural gas in the 120 communities Michigan Consolidated serves across the state. During the time he was manager of operations he supervised construction of facilities which enabled the company to increase sales by approximately 50 percent.

Mr. Paulin was a past president of the Michigan Gas Association, and a member of the American Gas Association.

He is survived by his wife, Catherine H. Paulin, a son, two sisters, and one brother.

William R. Putnam

a retired director and general consultant of Ebasco Services Incorporated, died Nov. 12, following a long illness. He was 81 years old.

Mr. Putnam was graduated in 1897 from the University of Minnesota. From 1899 to 1916 he was engaged in the operation of gas and street railway utilities in Minnesota, Wisconsin, Michigan and South Dakota. After a period of service with Utah Power & Light Company, he was named executive head of Idaho Power Company. In 1929 he joined Ebasco and its subsidiary, Ebasco Services Inc., and remained with the company for 20 years. As a general consultant at Ebasco, Mr. Putnam worked with utility company executives and staffs on their business and operating problems.

Three Southern California Gas groups win safety awards

AWARDS recognizing a million man-hours of continuous operation without a disabling accident have been won by three Southern California Gas Company groups of employees.

One award was presented to distribution department crews serving the southwest sector of Los Angeles. Since June 30, 1953, this group of 103 crew men has attained a total of 1,024,840 man-hours of work without a mishap.

A second award was given to 105 employees in the company's meter shop for having compiled an accident-free record of 1,103,312 man-hours of work since June 30, 1951.

The third award was presented to the San Joaquin Valley division of the company. This entire division of 198 employees completed a total of 1,028,000 man-hours without an accident in a three-year period starting June 30, 1954.

New Payne plant

A NEW PLANT facility and home office at La Puente, California, has been opened by The Payne Company. The plant, which contains over 500,000 square feet of manufacturing, engineering, and office space, was constructed at a cost of more than \$6 million. Among the special features are over two miles of conveyor systems for the handling of parts and product components, and a furnace for the firing of glass-lined heating elements at temperatures in excess of 1400F.

Connecticut Light and Power holds industrial gas show

MORE THAN 200 Connecticut industrial men and exhibitors representing national manufacturers of gas-fired equipment recently attended The Connecticut Light and Power Company's third annual Industrial Gas Show in Cheshire, Connecticut.

C. S. Stackpole, managing director of the American Gas Association, addressed the luncheon conference held in conjunction with the show. In his talk on "Gas Industry—A Forward Look," he stressed the fact that although the gas industry is growing by leaps and bounds, there are still fertile areas such as gas air conditioning.

After discussing in detail the present size and future prospects of the gas industry, he touched on some outstanding industrial gas applications in Connecticut. He concluded, "I hope I have convinced you that we in the gas industry are ready now to serve you to your everlasting benefits, that we are not complacent or contented with our status quo but are working to serve you better in the future; that our product is modern, versatile, flexible, safe, economical and easily adaptable to the age calling for speed and automation and servomechanisms."

Gilbert J. Williams, executive vice-president of CL&P, acted as host and toastmaster and reminded the representatives of Connecticut industry that his utility's industrial sales engineers are always available to help with manufacturing problems, particularly those solved through the use of modern gas installations.



Of the three Southern California Gas groups to win awards, the one with the longest accident-free record is the meter shop. Above, Vice-President C. A. Renz (l.) presents an award to the meter shop supervisor, W. F. Connor, with Vito Campobasso and Frank Macchia (r.) looking on

Hold ceremonies

NORTHERN ILLINOIS Gas Company recently feted its 600,000th customer in brief ceremonies at which Marvin Chandler, president, and local officials of Markham—the Chicago suburb where the installation took place—were present. The installation of a gilded meter for Mr. and Mrs. Richard Sears came just over two years since the 500,000th customer received gas service. The Sears, residents in an all-gas home, were presented with a new gas clothes dryer by Mr. Chandler.

Rental program

TAMPA GAS COMPANY has initiated a commercial gas water heater program in the west coast area of Florida. The campaign—first of its kind in Florida—is being spearheaded by newspaper advertising and direct mail to 2,200 commercial prospects. The Ruud Alcoa heaters used for the program are rented for from \$5 to \$9.50 per month. There are no installation, repair, or service costs. The Tampa Bottled Gas Company, an affiliate, is also participating in the rental program.



Conversing at the Industrial Gas Show are (l. to r.): William B. Arps of the R. L. Gourley Co., representing Ruud and Heatbath; C. S. Stackpole of A. G. A., who spoke at the luncheon conference held in connection with the show; and Quentin Q. Quinn of Connecticut Light and Power Co.

Equitable Gas Company elects Donald Beecher president



Donald Beecher



A. W. Conover

DONALD B. BEECHER was elected to the presidency of Equitable Gas Company,

Pittsburgh, Pennsylvania. A. W. Conover, president, in view of his continued serious illness, was elevated to chairman of the board. Mr. Conover is first vice-president of the American Gas Association.

Mr. Beecher, who was formerly Equitable's vice-president and general manager, brings 31 years of operating, engineering and administrative experience to his new position. He joined Equitable in 1926 after graduating from both Ohio Wesleyan University and Carnegie Institute of Technology.

In 1942, Mr. Beecher became assistant to the vice-president in charge of operations of the Kentucky-West Virginia Gas Company, a subsidiary of Equitable. He was elected vice-

president of Kentucky-West Virginia in 1945, and in 1952 was elected vice-president and general manager of Equitable Gas Company and its subsidiary, Philadelphia Oil Company. In 1955, he became vice-president of a newly formed subsidiary, Kentucky Hydrocarbon Company.

Mr. Beecher is active in American Gas Association work, a member of the board of the West Virginia Oil and Gas Association, and a member of American Petroleum Institute.

In other board action, John T. Brown was elected executive vice-president. C. J. Mulholland and F. N. Wolf were made senior vice-presidents. All three were also elected to the board of directors.

Personal and otherwise

Coleman chairman

SHELDON COLEMAN, president of The Coleman Company, Inc., has been elected chairman of the board of directors. He succeeds his father, W. C. Coleman, who died Nov. 2 (See obituary). Harold Fryar, director of manufacturing, was elected to the board to fill the unexpired term of the late Mr. Coleman.

Ryerson PR director

GEORGE W. RYERSON, secretary of Northern Illinois Gas Company, has been named director of public relations for the utility, a newly created position. While continuing as secretary of the company, Mr. Ryerson's new responsibilities include the general guidance and coordination of Northern Illinois Gas Company's public relations activities.

Brashear promoted

ALVAN V. BRASHEAR has been appointed manager of operations of Michigan Consolidated Gas Company. Mr. Brashear joined Michigan Consolidated as a cadet engineer in 1923 after graduating from the University of Michigan as a chemical engineer. A veteran of 34 years of service, Mr. Brashear has experienced all phases of natural gas distribution operations including service shop, street, meter and pressure departments. He has been assistant manager of operations since 1953 and succeeds the late Mr. Roland R. Paulin. Mr. Brashear is a member of A. G. A.

Con Edison elects Frank Brower and John Cleary

CONSOLIDATED EDISON Company of New York has announced the election of R. Frank Brower and John V. Cleary as vice-presidents. The company's board of trustees also elected Emanuel Toder as controller, Ralph F. Norris as assistant vice-president and John D. Gray as assistant treasurer.

Mr. Brower, who joined the test department of New York Edison, a predecessor company, in 1920, became system engineer of Con Edison in 1940. Since 1952 he has been assistant vice-president, engineering.

Mr. Cleary has been Con Edison's controller since 1953. He joined New York Edison's auditing department in 1925 and by 1934 was fixed capital engineer of both New York Edison and United Electric Light and Power Company. He was named Con Edison assistant controller in 1936 and senior assistant controller in 1946.

New Arkla directors

ARKLA Air Conditioning Corp., which recently purchased the Air Conditioning Division of Servel, Inc., added four new directors at a recent meeting of the board. They are: L. L. Baxter, Fayetteville, Ark., president of Arkansas Western Gas Co.; W. W. Selzer, New York, N. Y., director of business promotion for Columbia Gas System Service Corp.; S. R. Walker, Fort Smith, Ark., president of the Fort Smith Gas Corp., and C. H. Zachry, Dallas, Tex., president of Southern Union Gas Co., and the immediate past president of the American Gas Association.

Mr. Toder was Con Edison's senior assistant controller. He joined Consolidated Telegraph and Electrical Subway Company, a subsidiary, as assistant auditor in 1938, and became auditor two years later. He was appointed an assistant controller of Con Edison in 1951, and senior assistant controller in 1956.

Mr. Norris, who has been assistant to senior vice-president, has been with Con Edison or its predecessors since 1921. He held various posts in Westchester Lighting between 1926 and 1952. Since then he has engaged in sales, construction and commercial relations activities for Con Edison.

Mr. Gray joined Con Edison in 1939, and has been primarily engaged in legal work for the company.

Messrs. Brower, Cleary, and Toder are active in the American Gas Association.

Cincinnati elects Fields president, chief officer



E. S. Fields



W. C. Beckjord



W. H. Zimmer

ERNEST S. FIELDS was elected president and chief executive officer of the Cincinnati Gas and Electric Company, Cincinnati, Ohio, at the Nov. 22 meeting of the board of directors.

William H. Zimmer was elected executive vice-president and treasurer, and was

appointed chairman of the Finance Committee.

Walter C. Beckjord continues as chairman of the board. Mr. Beckjord has been associated with the company for 23 years, the last 12 as president and chairman of the board.

Mr. Beckjord has been extremely active in the American Gas Association. He has been a member since 1918, and was its president in 1940.

Mr. Fields was vice-president and general manager prior to the election. Mr. Zimmer was vice-president and treasurer.

Rochester Gas and Electric Company announces top executive changes



A. M. Beebe



Robert E. Ginna



Ernest J. Howe



Leo H. East



H. S. Weatherby



Paul W. Briggs



Robert W. Ball

ROBERT E. GINNA became chairman of the board and chief executive officer of the Rochester Gas and Electric Corporation on Nov. 1, succeeding Alexander M. Beebe, who retired from that post on that date in accordance with the company's retirement policy.

Similarly, Harold S. Weatherby became secretary of the company on that date to succeed Paul J. W. Miller, who retired for the same reason.

In view of these retirements, the utility's board of directors took the following steps.

Raymond N. Ball, formerly chairman of the Executive Committee, will continue as a director of the company and a member of the Executive Committee.

Alexander M. Beebe, formerly chairman of the board becomes chairman of the Executive Committee, and will continue as a member of the board of directors. Mr. Beebe joined the utility's underground department prior to his graduation from Cornell. Following his graduation, he became a cadet engineer with the utility, and rose through various posts becoming a director in 1943, a vice-president in 1945, president in 1947, and chairman of the board and chief executive officer in 1956.

He is a member of the board of 25 organizations, including the Institute of Gas Technology. He has been very active in the Amer-

ican Gas Association, serving on the advisory board, various committees, and in 1939 as chairman of the A. G. A. Technical Section. In 1938 he won A. G. A.'s Beal Medal for the year's best technical paper.

Mr. Ginna, formerly president, is now chairman of the board and chief executive officer, and continues as a director and a member of the Executive Committee. Mr. Ginna has had 34 years' experience in the gas, electric, and steam utility field. He started as a student engineer with Brooklyn Edison Company. After training he entered the consulting engineering field, and performed work all over the U. S. for many utilities, finally going to Rochester, New York. He joined RG&E in 1934, and rose from departmental manager to president, director, and member of the Executive Committee.

Ernest J. Howe, formerly vice-president and comptroller, became president of the utility and continues as a director and member of the Executive Committee. A graduate of the University of Denver and the Columbia University Graduate School of Business, Mr. Howe held various top-level financial posts before joining RG&E in 1940 as a director and member of the Executive Committee. In 1945 he was elected a vice-president, and in 1950 vice-president and comptroller.

Leo H. East, formerly vice-president in charge of operations, has become executive

vice-president and continues as a director and member of the Executive Committee. Following graduation from the University of Rochester, Mr. East started with the RG&E distribution department as a cadet engineer in 1924. He rose to become superintendent of the department in 1946; a year later he became general superintendent of the gas department. In 1949 he was made general manager of gas and engineering operations, and in 1950 vice-president in charge of operations.

Harold S. Weatherby, formerly assistant secretary, has become secretary. Mr. Weatherby joined the utility in 1927, rising from a clerk to the supervisor of the general accounting department. In 1947 he became assistant secretary, and in 1951 assistant secretary and superintendent of general accounting.

Paul W. Briggs, formerly assistant superintendent of general accounting, has become assistant secretary. Mr. Briggs, an A. G. A. member, rose from clerk in the general accounting department in 1945 to assistant superintendent in 1955.

Robert W. Ball, formerly assistant to the treasurer, has become assistant treasurer. Mr. Ball was graduated from the Bentley School of Accounting and Finance in 1938, and started that same year as an accounting clerk with RG&E. He became an accountant in the corporate department in 1946, and was appointed assistant to the treasurer in 1951.

Account executive for Laclede named 'advertising woman of year'

BONNIE DEWES, D'Arcy Advertising Company account executive for the Laclede Gas Company, was honored as "St. Louis Advertising Woman of the Year" by

the Women's Advertising Club. Miss Dewes, a member of the D'Arcy staff for 16 years, is the national agency's only woman account executive, and its first woman vice-president.

Miss Dewes also is the only woman advertising agency executive in the nation serving an American gas company as large as Laclede Gas Company.

Brooklyn Union Gas elects Samuel Green and A. Dudley Harrison



Samuel Green

SAMUEL GREEN has been elected as senior vice-president and A. Dudley Harrison as vice-president and chief engineer of Brooklyn (N. Y.) Gas Company. Prior to their elections, Mr. Green was vice-president and chief engineer and Mr. Harrison was assistant vice-president.

Mr. Green, who this year celebrated his 45th anniversary with the company, joined

Brooklyn Union in 1912 as a clerk. In 1919 he was made a superintendent's assistant. Rising through a succession of positions in the company's manufacturing department, he was elected chief engineer in 1951 and vice-president and chief engineer in 1953.

Mr. Green is a graduate of Brooklyn Polytechnic Institute and is a professional engineer. He has been active in various activities of the American Gas Association and for the past two years he has served as chairman of the A. G. A. General Research Planning Committee.

Mr. Harrison began his company career in 1928 in the holder distribution section; he was promoted to superintendent's assistant

the following year and shortly afterward to engineering assistant. In 1938 he became superintendent of holder distribution and in 1945 assistant general superintendent at Greenpoint works. In that same year he was promoted to assistant engineer of manufacture. Promotions followed to engineer of development and planning, engineer of manufacture, and in 1952 to assistant chief engineer. The following year he was elected assistant vice-president.

Mr. Harrison graduated from Stevens Institute of Technology and holds a degree in mechanical engineering. He has also served on many American Gas Association committees.

Names in the news—a roundup of promotions and appointments

UTILITY

Henry H. Swigert has been elected treasurer of Cities Service Gas Company. Mr. Swigert, formerly assistant treasurer, is a director of the company. As treasurer, he succeeds R. L. Morton, who remains vice-president and a director of the company.

Harry A. Offutt has been appointed assistant treasurer of New York State Natural Gas Corporation. He succeeds Fred A. Jaxheimer, who retired Nov. 1 after 35 years in the natural gas industry.

Newly elected secretary of the Columbia Gas System is **Milton C. Baldridge**. Mr. Baldridge has been secretary of the Columbia Gas System Service Corporation since 1945. He has also been secretary or assistant secretary of various other system companies.

Richard J. Murdy, chief geologist for New York State Natural Gas Corporation since 1952, has joined the parent firm—Consolidated Natural Gas Company. He will assist Vice-President E. H. Tollefson in a variety of duties.

A new director of Canadian Western Natural Gas Company Ltd. is **F. Clarence Manning**, president of the Calgary Exhibition and Stampede, and a leading Calgary businessman.

Richard A. Rosan has been elected assistant vice-president of the Columbia Gas System Service Corporation. He was also elected assistant counsel. Mr. Rosan joined the legal department of Columbia Gas System Service Corporation in September 1951.

Frank E. Capristo succeeds Joseph N. Betz as dealer promotion manager for the three Pittsburgh Group companies of the Columbia Gas System. Previously Mr. Capristo had been assistant dealer manager.

Gayle E. Stahl has been appointed manager of gas supply for Pioneer Natural Gas Company. Before joining Pioneer, he was manager of gas purchases for Permian Basin Pipeline Company, and before that, the same for Northern Natural Gas Company.

Harley M. McCamish, former chief engineer of the Sui-Karachi Gas Transmission Pipeline of Pakistan, has been appointed manager of Mountain Fuel Supply Company's pipeline division. Mr. McCamish has had extensive experience in gas transmission and distribution in California, Pakistan, and Italy.

Raymond F. Antolik of East Ohio Gas Company has been promoted to industrial relations director of the parent company, Consolidated Natural Gas Company. Succeeding Mr. Antolik as head of the East Ohio industrial relations department is **Hugh Z. Calland**. Another change within the organization is **Kenneth A. Peifer**'s promotion from the industrial relations department of Consolidated Natural to labor relations manager for Peoples Natural Gas Company.

New personnel manager for Arkansas Louisiana Gas Company is **T. O. Perry**, formerly senior personnel assistant.

John C. Dezelle, assistant division manager of United Gas Corporation at Beaumont, Texas, has been promoted to assistant operating manager of the company's Texas distribution operations. Mr. Dezelle has been with the company for 26 years.

Brooklyn Union Gas Company announces that **William B. Cameron** has been named assistant to the company's chief engineer and **Erwin O. Rossbach** has been named assistant to chief chemist.

Newly appointed purchasing agent at Northern Indiana Public Service Company is **Arthur J. Hartman**, succeeding Arthur F. Lindeman who retired Nov. 1 after 45 years of service. Mr. Hartman started with NIPSCO in 1924. Succeeding him as assistant purchasing agent is **Joseph H. Waxman**.

Four accounting promotions have been announced by Virginia Electric and Power Company. **Warner W. Douthat Jr.** has been named supervisor of the statistics section of the tax and statistics department; **James W. Rowe Jr.** has been appointed supervisor of the tax section of that department; **Charles M. Jarvis** has been named district accountant for the Richmond area; and **William F. Fritzsche Jr.** has been named district accountant for the Fredericksburg area.

Pipeline

T. L. McWilliams, superintendent of the Tennessee-Mississippi division of Texas Gas Transmission Corporation's compressor department, has been promoted to assistant superintendent of the entire Texas Gas compressor department. **W. S. Godwin** succeeds him. Succeeding Mr. Godwin as manager of the company's Clarksdale (Miss.) compressor station is **T. C. Tatum**,

and **J. C. Stewart** succeeds Mr. Tatum as manager at Lula, Mississippi. The company also announces that **Aaron Griffin** has been appointed assistant superintendent of dispatching; he was formerly assistant superintendent of the Kentucky-Indiana division of the company's pipeline department.

MANUFACTURER

Robert R. Forrester Jr., formerly executive vice-president, was recently elected president of The Wilcolator Company of Elizabeth, New Jersey. Harry A. Wilson, formerly president, has become chairman of the board.

Stiglitz Corporation reports the appointment of **Frederic V. Lacock** as vice-president in charge of sales, and the appointment of **J. Arthur Jenkinson** as a vice-president assisting Mr. Lacock. Mr. Lacock has been sales manager for the Dresher Manufacturing Company in Chicago during the past five years; Mr. Jenkinson has been sales manager for the special appliance division of Roper for the past two years.

Paul F. Bruning has been appointed vice-president in charge of manufacturing, heating and air conditioning plant at Pasadena by Holly-General Company.

New manager of manufacturing at Ruud Manufacturing Company is **John P. Ewing**.

Weldon D. Willes, assistant to the president of Rockwell Manufacturing Company's LFM division, has been named general manager of the company's new valve plant at Kearney, Nebraska. **Fred J. Langtry**, assistant works manager of the Oakland plant, has been promoted to works manager at Kearney.

The appointment of **John P. Carr** as assistant division manager at Pittsburgh has been announced by the Walworth Company.

Temco has appointed **Robert H. Ewing** as Mid-Atlantic regional sales manager with offices in Washington, D. C. Mr. Ewing has been in the gas industry for the past 20 years.

V. J. Eberl has been appointed plant superintendent of the Robertshaw Thermostatic division of Robertshaw-Fulton Controls Company.

Newly appointed Midwestern district manager at Norge Division of Borg-Warner Corporation is **Frank P. Hogan**.

New A.G.A. members

Gas Companies

Compagnie Francaise du Methane, Paris, France. (Amaury de Saint Vincent, Director General)

Lea County Gas Co., Ysleta, Texas. (D. L. Hill, Jr., Vice Pres. & Gen. Mgr.)

Manufacturer Companies

Anthes-Imperial Co., Ltd., The, St. Catharines, Ont., Can. (J. E. Stott, Dev. Engr.)
Bock Corp., Madison, Wisc. (Oscar L. Bock, Pres.)

Dupler Industries, Inc., Toledo, Ohio. (Raymond R. Dupler, Pres.)

Maytag Co., The, Newton, Iowa. (B. B. Turner, Mgr., Utility Relations)

Standard Connector & Manufacturing Co., Los Angeles, Calif. (Alfred Baron, Vice Pres.-Sales)

Individual Members

Shaukat Ali, London, England.
John R. Applegate, Rockwell Manufacturing Co., Pittsburgh, Pa.

John M. Baeza, Custom-Aire Products Div., Pacific Industries, Inc., San Francisco, Calif.
Wilford G. Bair, Institute of Gas Technology, Chicago, Ill.
Stanley O. Blois, Pacific Gas & Electric Co., San Jose, Calif.

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ISSUE O

Edwin R. Brandon, Gibson County Utility District, Trenton, Tenn.

Clark J. Chamberlain, Bureau of Home Appliances, San Diego, Calif.

Irving P. Cook, Harrisburg Gas Div., Harrisburg, Pa.

Lee G. Cordier Jr., Philadelphia Gas Works Div., UGI Co., Philadelphia, Pa.

Leigh B. Cornell, A. O. Smith Corp., Narberth, Pa.

William J. Crowley, Northern Illinois Gas Co., Aurora, Ill.

Edward B. Cuddy, Long Island Lighting Co., Mineola, N. Y.

Roy O. Dean, Pacific Gas & Electric Co., Emeryville, Calif.

G. H. Dieter, Fluor Products Co., Whittier, Calif.

C. C. Douglas, The Deutsch Co., Los Angeles, Calif.

Joseph J. Drechsler, Baltimore Gas & Electric Co., Baltimore, Md.

Jack R. Evans, Pacific Gas & Electric Co., Auburn, Calif.

Frank E. Everett Jr., Mid-Mountain Contractors, Inc., Seattle, Wash.

L. R. Farrell, Pacific Gas & Electric Co., Grass Valley, Calif.

Lloyd A. Ghiselli, Pacific Gas & Electric Co., San Francisco, Calif.

Carroll T. Gillis, Pacific Gas & Electric Co., San Francisco, Calif.

John G. Harrigan, A. O. Smith Corp., Kankakee, Ill.

Philip J. Haskins, Pacific Gas & Electric Co., San Francisco, Calif.

Roy F. Hayman, The Gas Council, London, England.

D. F. Hingley, Southern California Gas Co., Los Angeles, Calif.

Julian G. Irwin Jr., A. O. Smith Corp., Kankakee, Ill.

Mihran Khayan, Mene Grande Oil Co., Caracas, Venezuela.

Robert J. Knebel, Pacific Gas & Electric Co., Avenal, Calif.

Peter L. Larson, Northern Illinois Gas Co., Bellwood, Ill.

John Licata, Standard Oil Co. of Calif., San Francisco, Calif.

George M. Long, Northern Illinois Gas Co., Aurora, Ill.

Thomas D. McCarthy, Long Island Lighting Co., Mineola, N. Y.

Gene McDonald, E-Town Propane, Inc., Elizabethtown, Ky.

Thomas H. McElhearn, The Brooklyn Union Gas Co., Brooklyn, N. Y.

Howard S. McGriff, Pacific Gas & Electric Co., San Jose, Calif.

D. L. McLeod, Pacific Gas & Electric Co., San Francisco, Calif.

Stanford R. Morrow, Southern Counties Gas

Co., Pomona, Calif.

Gerald T. Mullin, Minneapolis Gas Co., Minneapolis, Minn.

John K. Murray, Pacific Gas & Electric Co., San Francisco, Calif.

C. E. Nordell, Southern California Gas Co., Los Angeles, Calif.

Richard M. Paulsen, Pacific Gas & Electric Co., Vallejo, Calif.

Daniel J. Quinland Jr., Pacific Gas & Electric Co., San Francisco, Calif.

Ralph W. Ready, Pacific Gas & Electric Co., San Francisco, Calif.

Thaddeus W. Riddle Jr., Fort Hill Natural Gas Authority, Easley, S. C.

Lewis H. Rive, Long Island Lighting Co., Mineola, N. Y.

Paul E. Robinet, Cameron Engineering Co., San Francisco, Calif.

Leona A. Robinson, Pacific Gas & Electric Co., San Francisco, Calif.

Alfred J. Rohrer, Pacific Gas & Electric Co., Napa, Calif.

P. C. Rollins, Standard Oil Co. of Calif., San Francisco, Calif.

Ted H. Rowcliffe, Aerojet-General Corp., Anaheim, Calif.

Louis W. Roye, A. O. Smith Corp.-Permaglas Div., Kankakee, Ill.

Harold E. Russell, Cincinnati Gas & Electric Co., Middletown, Ohio.

Granger D. Schrader, Philadelphia Electric Co., Philadelphia, Pa.

James E. Scullion, Pacific Gas & Electric Co., San Francisco, Calif.

Don R. Shaffer, Pacific Gas & Electric Co., San Francisco, Calif.

William P. Smith, Philadelphia Electric Co., Philadelphia, Pa.

G. C. Stanley, Pacific Gas & Electric Co., Richmond, Calif.

Luster L. Starrett, Northern Illinois Gas Co., Aurora, Ill.

Wallace O. Stratton, San Diego Gas & Electric Co., Chula Vista, Calif.

Roy G. Strum, Pacific Gas & Electric Co., Auburn, Calif.

A. J. Swank, Pacific Gas & Electric Co., San Francisco, Calif.

J. B. Taylor, Signal Oil & Gas Co., Los Angeles, Calif.

Noble D. Travis, Michigan Consolidated Gas Co., Detroit, Mich.

Theodore V. Vogel, Pacific Lighting Gas Supply Co., Los Angeles, Calif.

R. M. Wedgewick, Oakland, Calif.

L. F. Whipple, Pacific Lighting Gas Supply Co., Los Angeles, Calif.

August T. Wiemken, Pacific Gas & Electric Co., Oakland, Calif.

William C. Wild, Long Island Lighting Co., Mineola, N. Y.

Mervyn W. Wilkinson, Metters Ltd., Wembley, W. Australia.

J. P. Wilson, Johns-Manville Sales Corp., San Francisco, Calif.

CONVENTION CALENDAR

1958

MARCH

17-21 •National Association of Corrosion Engineers, Annual Conference and Exposition, San Francisco, Calif.

20-21 •New England Gas Association, Annual Meeting, Hotel Statler, Boston, Mass.

24-26 •Mid-West Gas Association, Broadmoor Hotel, Colorado Springs, Colo.

27-28 •Oklahoma Utilities Association, Annual Convention, Biltmore Hotel, Oklahoma City, Okla.

31-April 2 •Gas Appliance Manufacturers Association, Annual Meeting, The Greenbrier, White Sulphur Springs, W. Va.

31-April 2 •A. G. A. General Management Section Conference, The Shoreham, Washington, D. C.

APRIL

8-10 •A. G. A. Sales Conference on Industrial and Commercial Gas, Hotel Schroeder, Milwaukee, Wis.

14-16 •National Conference of Electric and Gas Utility Accountants, Shamrock-Hilton Hotel, Houston, Texas.

17-18 •Indiana Gas Association, Annual Convention, French Lick-Sheraton Hotel, French Lick, Ind.

21-23 •A. G. A. Research and Utilization Conference, Hotel Carter, Cleveland, Ohio.

28-30 •Southern Gas Association, Annual Convention, Dallas, Texas.

MAY

4-7 •LPGA Annual Meeting, Conrad Hilton Hotel, Chicago, Ill.

4-7 •Air Conditioning and Refrigeration Institute, Annual Meeting, The Homestead, Hot Springs, Va.

5-9 •Distribution, Production and Transmission Conference, Roosevelt and Commodore Hotels, New York City.

5-9 •National Restaurant Association Convention and Exposition, Navy Pier, Chicago, Ill. (A. G. A. will exhibit).

12-13 •A. G. A. Eastern Gas Sales Conference, Park Sheraton Hotel, New York City.

18-21 •Industrial Heating Equipment Association, The Homestead, Hot Springs, Va.

19-21 •A. G. A. Midwestern Gas Sales Conference, Edgewater Beach Hotel, Chicago, Ill.

20-22 •Pennsylvania Gas Association, Annual Meeting, Pocono Manor Inn, Pocono Manor, Pa.

Personnel service

SERVICES OFFERED

Pakistani wishes position as apprentice to learn of United States natural gas company operations. Educated at the University of Punjab with courses in Gas Technology. Westminster Technical College, London. Available after June 1958. 1884.

General Sales Manager—Experienced in retail dealer, distributor and manufacturers sales management. 12 years with outstanding merchandising utility. Products sold—heating, cooling, water heaters, ranges, refrigerators, residential and commercial. 1887.

ME Graduate with 8 years' management experience covering all phases of manufactured and natural gas operations, desires permanent position with live-wire, progressive company where advancement opportunity exists. Can competently manage medium sized company or head up department or branch of larger company. Outstanding personal qualifications and excellent relations with superiors, subordinates and the public. Will relocate. 1888.

Factory Sales Representative—with over 20 years experience, seeks new connection with a reputable manufacturer, promoting and merchandising domestic gas appliances, preferably in the New York-New Jersey area. Top notch performance and references. 1889.

Public Relations Director—broad experience in all phases of public relations. Sound approach to community and customer relations. Publicity materials with a purpose. Would relocate. 1890.

Training Director—Sales and Personnel—practical background with thorough understanding of motivation, group and individual training, follow through. Experienced in recruitment and employment methods. Would be willing to relocate. 1891.

Industrial Gas Engineer—considering change, location immaterial. Presently employed as project engineer in design, development, and promotion of non-patent process to produce 3-5 micron wavelength infra-red from natural, manufactured, or propane gases. Has recently supplied this equipment to one of largest U.S. automobile manufacturers to cure synthetic enameled parts in 2-2½ minutes. Only progressive firms offering substantial remuneration, contract, and potential advancement to executive position need reply. Interview in NYC. 1892.

Sales Engineer—ME degree, 21 years in sales and service of gas refrigerator and water heater for a manufacturer. Fully familiar with gaining product acceptance at every level. Wide experience in personnel training. (War experience: Trained highly skilled technicians and field engineers in the design, use, maintenance and repair of intricate precision equipment.) Well known in New England and Mid-Atlantic states. Desire sales engineering position in same general area. Have high level of interest and capacity in air conditioning. 1893.

Executive Engineer—professional license with 15 years experience: A. G. A. Laboratory, Division Management consisting of the design, development and production of nationally sold lines of heating equipment and consulting engineering. 1894.

Systems—Asst. Treasurer—Controller—Manager—25 years utility operation at all levels including consulting and public accounting. Complete system, design and installation of IBM systems, post card billing, rate analyses, centralized billing, mechanical cash posting and airtight controls. Form design all procedures and flow charts for customers and general accounting including stores. Original cost, CPR, all statements. Excellent references; married; 1 child; BS Accounting; prefer Northeast. (45). 1895.

Canadian Manufacturers' Agent—with over 25 years of sales and managerial experience in the Canadian gas appliance manufacturing field, wishes to contact component parts or major appliances manufacturers interested in establishing or improving their present operations in Canada. Also interested in gas equipment. 1896.

Sales—30 years' experience including 15 years' direct plumber-dealer and merchandising utility sales with one company in New York Metropolitan area and 15 years in supervising sales covering northeast area for company recently in automatic heater and tank business. Prefer New York as home base, will travel. 1897.

Manager—in Midwest or Northwest area, for small and medium size gas operation, or department head for large gas operation. Experience covers eight years in top management and 14 years in supervision in production, distribution and service with manufactured, mixed, and natural gases. 1898.

Gas Operating Engineer—ten years' experience with working knowledge of gas transmission, distribution and utilization; familiar with accounting, rates, appliance sales. Also familiar with electric operation. Desire position as manager or similar position requiring operating experience. (37) 1899.

Citizen of the Netherlands wishes to immigrate to the United States. 13 years' experience in the gas industry. After service with the Dutch army as a volunteer, began his gas industry career at the gas distribution department of the municipal energy works at Rotterdam. He was charged with laying of services, gas meter installation, installation and repair of gas appliances, regulators and governors. Between 1950 to the present, he held the following positions: foreman gas fitter; assistant supervisor; in charge of drawings as service card index, industrial appliances and planning. As technician of the fitting section, industrial gas service, planning and controlling the execution of new projects. Married, 2 children. (33) 1900.

Manager-Purchasing Agent—experience in all phases of the gas industry, manufactured, mixed, propane-air, natural. And have been instrumental in the starting of propane operations in domestic, commercial and industrial levels in conjunction with the utility operations. 1901.

Mechanical Engineer—professional license, 13 years experience; design and construction of water, oil and natural gas plants, compressor stations and pipelines, steam and Diesel power, heating, air conditioning and refrigeration facilities, metallurgical and chemical plants. Desire position at project level for

economic analysis and feasibility studies, design and plant betterment. 1902.

Economist—need only to write dissertation for Ph.D. in Public Utility Economics. 5 years' experience with purchasing department of a major oil company. Veteran W.W.II. Will relocate. Preference small city in Northeast or South. Now available immediately. (N) 1903.

POSITIONS OPEN

Sales Engineer—excellent opportunity with expanding specialty manufacturer of cast iron gas boilers for aggressive man with background in the wet-heat field, to call on jobbers, contractors, architects, builders, utilities. Able to organize sales meetings and render technical field service. Willing to travel and relocate. Applications held in strict confidence. 1852.

Compressor Station Engineer—large gas utility in Great Lakes area needs graduate engineer, preferably under 40, with some compressor station experience. Assistant to superintendent in design field engineering and other problems related to maintenance and operation of stations. Liberal benefits. Salary in line with education and experience. State personal and educational qualifications. 1853.

Gas Engineer—outstanding opportunity for exceptional young gas engineers with interest in management and sales. Expanding staff of national firm of business and engineering consultants has room for ambitious men with general gas utility experience. Men selected will receive diversified consulting assignments, particularly in the fields of sales and market analysis, under close personal supervision of experts in the field. This is an opportunity to grow in a friendly atmosphere where initiative is encouraged and rewarded. 1854.

Mechanical Engineer—research and education facility on technical institute campus in mid-west needs young engineer with supervisory ability for expanding program in applied research on gas utility problems. Excellent opportunity for professional development, including broad industry contacts, part-time graduate study and part-time teaching if interested. Salary commensurate with experience and ability. 1855.

Gas Measurements Engineer—extraordinary opening for an able man interested in the measurement and dispatch of natural gas for industry. An opportunity to join a major new Canadian utility while in early development. Graduate engineer or equivalent. Some experience in large volume gas measurement essential. Address application in writing to: Northern Ontario Natural Gas Co., Ltd., 20 University Ave., Toronto, Ontario. 0856.

Young Engineers—Philadelphia utility with divisions in Eastern Pennsylvania can use three recent engineering graduates. Will be given groundwork in all departments of company before regular assignment. In reply please state age, education, experience—if any. 0857.

Engineers—Philadelphia utility can use two engineers experienced in gas distribution. Please state age, education, experience and other background information in replying. 0858.

Boothby re-elected chairman, trustees named, at IGT meeting

E. J. BOOTHBY, president of Washington Gas Light Co., has been re-elected chairman of the board of trustees of the Institute of Gas Technology, affiliate of Illinois Institute of Technology. Eight trustees were re-named to the board and three new trustees were elected during the 16th annual meeting of members and the board of trustees.

Eskil I. Bjork, chairman of the board, The Peoples Gas Light & Coke Co., Chicago, has been elected to a three-year term on the

board.

Elected to fill vacancies on the board which expire in 1959 are Gerald T. Mullin, president, Minneapolis Gas Co., Minneapolis, Minn., and R. A. Puryear Jr., president, Alabama Gas Co., Birmingham, Ala.

Re-elected to three-year terms are: F. M. Banks, president, Southern California Gas Co., Los Angeles, Calif.; E. J. Boothby, president, Washington Gas Light Co., Washington, D. C.; James D. Cunningham, president,

Republic Flow Meters Co., Chicago; E. H. Eacker, president, Boston Gas Co., Boston, Mass.

Also, Robert A. Hornby, president, Pacific Lighting Corp., San Francisco, Calif.; George T. Naff, president, Texas Eastern Transmission Corp., Shreveport, La.; J. Theodore Wolfe, president, Baltimore Gas and Electric Co., Baltimore, Md., and George S. Young, president, Columbia Gas System, Inc., New York.

A.G.A. advisory council

E. R. ACKER.....Poughkeepsie, N. Y.
B. C. ADAMS.....Kansas City, Mo.
F. M. BANKS.....Los Angeles, Calif.
L. L. BAXTER.....Fayetteville, Ark.
LESLIE A. BRANDT.....Chicago, Ill.
DUDLEY B. W. BROWN...New York, N. Y.
WENDELL C. DAVIS.....Chicago, Ill.
J. ROBERT DELANEY....Cincinnati, Ohio
J. F. DONNELLY SR.....Milwaukee, Wis.
E. H. EACKER.....Boston, Mass.
W. M. ELMER.....Owensboro, Ky.
N. HENRY GELLERT.....Seattle, Wash.
ELISHA GRAY.....St. Joseph, Mich.
LYLE C. HARVEY.....Syracuse, N. Y.
FREDERIC O. HESS.....Dresher, Pa.
J. E. HEYKE.....Brooklyn, N. Y.
J. K. HORTON.....Calgary, Alta.
OAKAH L. JONES.....Toronto, Ont.
D. E. KARN.....Jackson, Mich.
PAUL KAYSER.....El Paso, Texas
GROVE LAWRENCE....Los Angeles, Calif.
WISTER H. LIGON.....Nashville, Tenn.
A. W. LUNDSTRUM.....Columbus, Ohio
WILLIAM G. MAGUIRE...New York, N. Y.
N. H. MALLON.....Dallas, Texas
DEAN H. MITCHELL.....Hammond, Ind.
W. E. MUELLER...Colorado Springs, Colo.
GERALD T. MULLIN....Minneapolis, Minn.
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